

**TWENTY-FIVE YEARS OF RESEARCH  
IN SCHOOL EDUCATION  
THE SCENARIO IN WEST BENGAL**

**REPORT OF SSA PROJECT  
(2005-06)**

**STATE COUNCIL OF EDUCATIONAL RESEARCH & TRAINING (WEST BENGAL)  
25/3, BALLYGUNGE CIRCULAR ROAD  
KOLKATA - 700019**





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**Report of a SSA Project carried out at SCERT (WB) in 2005-06**

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## FOREWORD

The State Council of Educational Research & Training (West Bengal) formally came into being in the year 1980 under the Department of Higher Education with the merger of seven institutions/departments for organization of educational research, training, extension and cooperation for the qualitative improvement of school education. SCERT (WB) comprised four divisions catering to

- ♦ Curriculum and material development
- ♦ Educational research, evaluation and examination reforms
- ♦ Training and extension
- ♦ Educational Technology

At present, SCERT (WB) is a wing of the School Education Department but its functions have remained more or less the same over the years. It is involved in educational research that would lead to an overall improvement of the system.

As a part of its national level activities, SCERT (WB) was entrusted with the responsibility of preparing the Perspective Plan on Teacher Education of West Bengal for the Tenth Five Year Plan in 2004. The task has been completed and the Plan has been approved by MHRD, GOI in 2005. In the Guidelines for preparation of the Perspective Plan, circulated by MHRD, it is stated that SCERT may take up projects including (p.15):

- ♦ Assessment/research related to school education and pre-service and in-service teacher education
- ♦ Development of curriculum and material for school education and teacher education
- ♦ Training of teacher educators
- ♦ Projects related to school/institutional development.

It was during preparation of the Plan that the idea of making a study of the research work that has been carried out so far in school education in the state of West Bengal struck us. The idea was nurtured for over one year and finally germinated in the form of this document titled **"Twenty-Five Years of Research in School Education: The Scenario in West Bengal"**. This document is the report of a SSA project funded by Paschim Banga Rajya Prarambhik Shiksha Sanstha (State Project Office, SSA-DPEP).

The purpose of taking up this study was to get an idea of those areas of school education that have been covered by Ph. D. level studies in the universities of West Bengal since 1980. We concentrated on three disciplines, namely, Education, Psychology and Sociology, as it was felt that these have direct bearing on our arena of activities.

We hope that our effort will bring to the forefront the areas of school education that have to be tackled on priority basis in order to achieve both short term and long term goals. This compendium of research in school education would help in



wider dissemination of methods/ observations/ findings of the research work carried out by the scholars and submitted through Ph. D. theses that are lying in the different libraries. The findings of these studies would serve their purpose when they reach the hands of policy makers, educational administrators and practitioners at the grass root level. Our labour would bear fruits only when it paves the way for successful implementation of educational policies by evolving better methods of translating them into realities. The study of the research findings might reveal better methods of classroom transaction for a particular subject on a particular topic and that would certainly help the teachers and also teacher educators. It is also expected that new research questions would emerge which would revitalize teacher education on the whole.

We would like the readers of this report to note that some titles relevant to school education could not be collected due to shortage of time and manpower or some titles might have been missed inadvertently. We hope that this shortcoming of ours would be taken into account.

Opinions about this report from people belonging to all walks of life are welcome. They would help us to evaluate and improve ourselves.

Rathindranath De  
Director, SCERT (WB)



## ACKNOWLEDGEMENT

First and foremost, we would like to express our gratitude to the Publication Division and the Department of Educational Research and Policy Perspectives of National Council of Educational Research & Training (NCERT), New Delhi for granting SCERT (WB) permission to reprint some abstracts from the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Surveys of Research in Education (published by NCERT). It has been possible to publish this document in the present form only because of the cooperation extended to us by NCERT. The letters from the two Departments are reproduced in the Annexure.

While preparing this report we visited the libraries of some universities of West Bengal and received the support of many persons from different sectors. They helped SCERT to give final shape to this report. We take this opportunity to thank them specially by presenting their names here:

- Dr. P.K. Saha, Vice-Chancellor, University of North Bengal
- Prof. Ujjal Kumar Basu, Registrar, University of Calcutta
- Shri Utpal Bhattacharyya, Registrar, University of Kalyani
- Prof. S.K. Sarkar, Registrar, Visva-Bharati
- Dr. Soumitro Sarkar, Librarian, Central Library, University of Calcutta
- Shri Pradip Kaduri, Controller (Exams), University of Kalyani
- Shri Subodh Gopal Nandy, Librarian, Central Library, Visva-Bharati
- Librarian, University of North Bengal
- Shri Mriganka Mandal, In-charge, Central Library, University of Kalyani
- Dr. Dulal Mukherji, Department of Education, University of Kalyani
- Shri Satyabrata Ghosal, Librarian, Rabindra Bharati University
- Shri Samir Chakroborty, Librarian, David Hare Training College

We are specially thankful to the Chairman and members of the Academic sub-committee of SCERT (WB) who have constantly advised and guided us.

We thank the State Project Director, Paschim Banga Rajya Prarambhik Shiksha Unnayan Sanstha (SSA-DPEP) for providing the financial assistance required to carry out the study.

Special thanks are due to Dr. Urmi Chakroborty, Research Fellow (Grade – II) in Psychology and Smt Sridebi Dasgupta, Research Fellow (Grade – II) in Chemistry at SCERT (WB), who spent a considerable amount of their time and effort to help us consolidate this report.

Last but not the least, we thank the other Research Fellows and employees of SCERT (WB) who helped us in completing this project.







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# *CHAPTER - I*







## **SECTION – A**

### ***Introduction***

#### **Significance of Research in Education as presented in National & State Level Documents**

##### **I) NATIONAL LEVEL:**

The **National Policy on Education, 1986**, in the section 'The essence and role of Education' (Para 2.1-2.4, pg. 3), states, "In our national perception, education is essentially for all. This is fundamental to our all-round development, material and spiritual."

"Education has an acculturating role. It refines sensitivities and perceptions that contribute to national cohesion, a scientific temper and independence of mind and spirit – thus furthering the goals of socialism, secularism and democracy enshrined in our Constitution."<sup>1</sup>

Since the dawn of Independence, the architects of India's future have attached immense importance to education and its different aspects. They realized that if India has to regain its past glory and become one of the leading nations, it has to strengthen its base and that can be achieved only through education of the masses. Several national level Commissions and Committees have been formed since Independence and national policies have been formulated for restructuring of the existing scenario of education at different stages. The landmarks in the history of Indian education in the post-independence era may be enumerated as:

1. University Education (Radhakrishnan) Commission, 1948-49
2. Secondary Education (Mudaliar) Commission, 1952-53
3. Education (Kothari) Commission, 1964-66
4. National Policy on Education, 1968
5. National Policy on Education, 1986
6. Programme of Action, 1992. This was the outcome of several reviews of the National Policy on Education, 1986, namely, Ramamurti Review Committee, 1990; CAGE Committee Report, 1991-92; Janardhana Review Committee, 1991; and finally leading to the revised Policy in 1992.

The **University Education Commission** was set up in 1948 under the chairmanship of Dr. S. Radhakrishnan. The Commission emphasized the role of universities in the advancement of the frontiers of knowledge, namely research, pure or fundamental. Research was considered essential social function for the universities. It was also a pre-requisite of really sound and inspiring teaching.<sup>2</sup>

The **Secondary Education Commission** was formed in 1952 with Dr. A.



Lakshmanaswami Mudaliar as its Chairman. The Commission observed that<sup>3</sup>

- There is an urgent need for curricular research in our country. Hopefully its importance will be clearly realized and arrangements made for it in the Training Colleges (p. 75).
- The training colleges should conduct research work on curricular and co-curricular activities, general administration, modern trends of pedagogy and evaluation tests and for this purpose they should have under their control experimental or demonstration schools besides the practicing schools. (p. 138)
- The active cooperation of the Centre with the states is essential to carry on the necessary research in the different fields of education which may ultimately be incorporated in the educational system. (p. 174)

To ascertain the overall status of education in India, the **Education Commission** was set up in 1964 and Dr. D.S. Kothari was appointed its Chairman. The main aim of the Commission was to advise the Government on 'the national pattern of education and on the general principles and policies for the development of education at all stages and in all aspects'. The Commission in its voluminous report made several recommendations regarding higher education. According to its report, an important responsibility of the Indian Universities is to assist the schools in their attempts at qualitative self-improvement. For this purpose, Universities should conduct experimental schools, make arrangements for the training of teachers at all levels, organize summer institutes for their in-service education, and develop new curricula and teaching materials.<sup>4</sup>

The **National Policy on Education, 1968** has made the following observations<sup>5</sup>

- With a view to accelerating the growth of the national economy, science education and research should receive high priority. [Para 4(7), pg. 5]
- There is need to give increased support to research in universities generally. The institutions for research should, as far as possible, function within the fold of universities or in intimate association with them. [Para 4(12 e), pg. 8]
- Considering the key role which education, science and research play in developing the material and human resources of the country, the Govt. of India will, in addition to undertaking programmes in the Central Sector, assist the State Governments for the development of programmes of national importance where coordinated action on the part of the States and the Centre is called for. [Para 6, pg. 9]

The **National Policy on Education, 1986**, in the section 'The essence and role of Education' (Para 2.1-2.4, pg. 3), states, " Education develops manpower for different levels of the economy. It is also the substrate on which research and development flourish, being the ultimate guarantee of national self-reliance."

The Task Force working on Higher Education suggested that in order to make higher education relevant, it is necessary to modify curricula and

methodologies of learning through appropriate research and development to incorporate elements of problem-solving, creativity and relevance.<sup>6</sup>

According to the Task Force on Research & Development<sup>6</sup>, some of the main problems encountered by research in our higher educational institutions are:

- ♦ Linkage between research activity and the improvement of educational processes is very weak. Research will have to be utilized for renovation and renewal of the educational process and energizing modernization of curriculum. There is an absence of a nodal agency for managing, implementing and monitoring of R & D in educational sector.
- ♦ Research in social sciences is generally not related to problems of development. Nor are the results of social sciences research disseminated adequately to the policy makers in a form that could be used in policy formulation. The linkage between research and curriculum renewal is also weak.
- ♦ Most of the researches in Social Science are uni-disciplinary. Inter-disciplinary and trans-disciplinary researches are not taken up sufficiently. This is particularly needed in order to interface Social Science and Humanities with Science & Technology.

The **Programme of Action on NPE**, 1992, states that the average quality of research and development has to be improved. It is necessary to be selective in areas of research rather than spreading out. The areas chosen should be relevant to the national needs and to the subject itself. It also recommends that teaching and research should go hand-in-hand in higher education institutions<sup>6</sup>.

## II) STATE LEVEL:

Eight important Commissions and Committees have been set up in West Bengal since independence to provide the policy directive in the field of education. They are presented in the table given below<sup>7</sup>:

Sl. No.	Commission/Committee	Chairman	Year
1.	Secondary Education Commission	Dr. B.B. Dey	1954
2.	Primary Education Syllabus Committee	Prof. Himangshu Bimal Majumdar	1974-79
3.	On Sanskrit Education	Dr. Gouri Nath Shastri	1982-83
4.	Education Commission	Dr. Ashok Mitra	1991-92
5.	One-man Committee on English in Primary Education, West Bengal	Dr. Pabitra Sarkar	1998
6.	School Education Committee	Prof. Ranju Gopal Mukherjee	2001-03
7.	On Madrasah Education	Dr. A.R. Kidwai, M.P.	2001-02
8.	Comparability Committee (syllabus and curriculum of secondary and higher secondary education)	President, West Bengal Board of Secondary Education (Convener)	1995-2002



The **Education Commission, West Bengal** (1991-92)<sup>8</sup> in para 9.19 (f), states that 'In selecting areas of research, those which are proximate to the nation's, or the State's major problems should receive precedence. ....Research in science and technology should obviously concentrate on such areas as food production, irrigation, energy, appropriate industrial technology, transport and communications, health and nutrition and so on, while in the humanities and social sciences, the stress should be on unravelling facets of contemporary economic, social, cultural and linguistic realities' (p. 194).

The **School Education Committee, West Bengal** (2001-02)<sup>9</sup>, in its recommendations states that 'time-bound research programme should be undertaken for designing appropriate syllabus, developing standard teaching materials and effective teaching methods, followed by extensive teacher orientation' (p.110).

### **Institutions for Research in School Education**

The National Council of Educational Research and Training came into being in 1961 as a premier institution that would carry out research in the different fields of education. NCERT functions as a national-level apex body for improving school educational programmes. Its main functions may be summarized as<sup>10</sup>

- ♦ To conduct programmes of teacher education
- ♦ To undertake individual and institutional level research projects
- ♦ To organize training programmes for different kinds of educational personnel
- ♦ To offer consultancy services in the planning and administration of school education
- ♦ To promote educational research by other agencies through financial support
- ♦ To disseminate information concerning educational research and development activities in the country

Almost on the same lines, the State Council of Educational Research and Training (West Bengal) was set up as a research institution. It came into existence officially in 1978, started functioning in 1980 with the onset of merger of 7 institutions and had a full-time Director from 1983. Initially it was under the aegis of Higher Education but at present, SCERT (WB) has become a part of School Education. The main functions of SCERT (WB) may be summarized as

- ♦ Curriculum and materials development
- ♦ Orientation and training
- ♦ Research and training
- ♦ Extension and dissemination of information

### **Review of Existing Literature on Educational Research**

The literature regarding educational research was surveyed and this provided

SCERT (WB) the desired direction for carrying out a project on “**25 Years of Research in School Education: The Scenario in West Bengal**”.

There are basically three **phases** of educational research in India over the years as observed by **M.B. Buch and R. Govinda** in ‘Educational Research in India – an overview’ in M.B. Buch (ed.), Third Survey of Research in Education, (NCERT, 1987, p. 1-31): <sup>10</sup>

1. Assessment of adequacy, quality and impact of educational system. This involves collation of social statistics and creation of database useful for planning and administration.
2. Study of different pedagogical aspects including teacher-training and teaching-learning processes.
3. Understanding the educational system, not in isolation, but in the context of socio-economic and political structure of the society as well as on reorganizing and evolving new systems in order to achieve the desired impact on the society.

According to them, ‘education, unlike most other branches of knowledge, does not focus on a natural phenomenon but on a socially contrived phenomenon wherein environmental setting, human as well as physical, is manipulated in appropriate ways so as to achieve desirable changes in the status of other individuals’. Buch and Govinda also feel that for fruitful implementation of the findings of research in any area, it is necessary to have a ‘continuous interface between the researcher, the planner and administrator, and the practitioner operating at the grass root level’.

According to **Prof. M.B. Buch**, in his write-up titled ‘New directions for educational research in India’ published in the 4<sup>th</sup> Survey of Research in Education, Volume I (edited by M.B. Buch, NCERT, 1991, p. 1-45), the contribution of **Psychology** towards developing pedagogy is undeniable and quite significant. The research areas in this subject include: <sup>11</sup>

- Familial and cultural influences
- Classroom practices and cognitive psychology
- Subject-matter learning
- Development of human mind
- Nature of effective environments for education
- Learner differences
- Individual differences
- Processes of thinking
- Development of problem-solving skills
- Teacher effects and student effects in the context of pupils’ achievement
- Personality correlates of pupils’ achievement
- Intervention programmes in early childhood education, in the education of



exceptional and disabled children and of economically, socially and culturally deprived children

- Guidance and counseling
- Motivation
- Testing and measurement

The findings of these researches are useful both in classroom situations and beyond. They also provide a frame of reference for educationists in policy making.

**Andrew Pollard** in his essay 'Towards a sociology of learning in primary schools'<sup>12</sup> published in 'Teaching and learning in primary school' (edited by Andrew Pollard and Jill Bourne, Open University, p. 12-27) writes that 'We have to recognize the way in which the social context influences the perspectives and behaviour of the child. In fact, children are social beings who construct their understandings (learn) from social interaction within specific socio-cultural settings.

According to M.B. Buch,<sup>11</sup> sociologists study education in social contexts and help in understanding society's role in shaping education and vice versa. The research areas in **sociology** include:

- Modernisation in attitudes, values and behaviour of students, teachers and other adults in urban, rural and tribal areas
- Education and polity
- Education and social stratification
- Education of minority and backward groups
- Social factors behind educability, motivation, personality development and student activism
- Equality of educational opportunity
- Societal factors affecting the holding power of schools
- Sociological correlates of pupils' achievement

The findings help educational administrators to plan education for rural and tribal areas and to take adequate steps for enrichment of educational programmes and for providing opportunities for the have-nots of the society.

The third branch, **education**, 'as a subject of study, adopts in its concepts a multidisciplinary perspective, allows for interfaces with other disciplines and provides scope for them to undertake studies on educational problems'.

The discipline of psychology has contributed the maximum number of studies on education. The two subjects share a large number of topics as common areas of study such as learning, motivation, testing and measurement, guidance and counseling, personality, etc.

In the view of **Prof. C.S. Nagaraju**, as published in '**Educational Research in India**' in Encyclopaedia of Indian Education (Vol. 1, NCERT, 2004, p.600)<sup>13</sup>, 'educational research emphasizes generation of knowledge about the instrumental

values of educational inputs including teachers, curriculum, classroom interactions, etc. in bringing about desirable changes'.

He further observes that 'all educational researches in the context of modern complex societies are applied in nature, as education in such situations is an contrived arrangement to induce changes in an individual by making use of the social, psychological and economic nature of human beings. The corresponding sociological processes universally observed in all human grouping is socialization. Similarly, psychologists study learning with the focus on the learner, in which the object of learning becomes instrumental. Educational researcher treats objects of learning as the focal point in school learning (education) and the laws of learning become instrumental to achieve the objects of learning. Thus, the underlying principles from sociology and psychology are borrowed by education to meet its own ends in particular contexts'.

Nagaraju also feels that 'in the absence of the definition of boundaries of education, all researches, whether in social sciences or in natural sciences, have indirect bearing on education, as all new knowledge generated in any new field would eventually become part of the content of the curricular discourse or deal with individuals or human organizations which includes school systems'.

### **Purpose of taking up the present study**

SCERT (WB) provides support to different sectors of education, like elementary education, secondary education, teacher education in general; and population education, science education, environmental education, computer education, etc. in particular, besides finding answers to issues and problems arising in these areas. It is in this capacity of a research organisation that SCERT (WB) has taken up this project titled **"Twenty-five Years of Research in School Education : The Scenario in West Bengal "**.

Based on the outcomes of the survey of the existing literature, SCERT (WB) took up the present project. The main aim of this project is to take stock of the research studies that deal with school education. In other words, we wished to bring together those Ph.D. level research studies that have direct relevance to different aspects of school education and have been carried out at the Departments of Education, Sociology and Psychology in the Universities of West Bengal for the last 25 years, i.e. since 1980. We concentrated on these three disciplines as we felt that they are intimately linked with one another.

This effort of ours would bring to limelight the studies that are lying unused but might be useful and relevant in today's scenario of school education. We felt that a study of the specific areas of these research studies, their methodologies and findings might be helpful for future researchers and would provide them a sort of guideline. A close scrutiny of the broad areas of research of these studies would not only enlighten us about the specific areas of school education that need more attention, but would also help us identify some emerging areas in school



education that require interdisciplinary approach of research. Some agencies for collaborative work in these areas might also be suggested.

We hope that our report serves as a sort of compendium of research studies in school education carried out in the Universities of the state for ready reference by researchers, interested administrators and policy makers, and enthusiastic practitioners. This compendium would help disseminate the research findings. Another outcome of our effort might be the strengthening of the link between Teacher Education and School Education.

Summing up, the **objectives** of our present study are:

1. To take note of the titles (areas), methodologies and findings of these research studies.
2. To identify some emerging areas in school education those require interdisciplinary approach of research and to suggest agencies for collaboration.
3. To prepare a compendium of research works in school education for making relevant information available at a glance.
4. To strengthen the link between Higher Education and School Education.

Proper school education lays the foundation of a healthy society as it prepares the child of today to become a creative and successful citizen of tomorrow. Therefore, the various aspects of school education have to be carefully planned and implemented. If it is observed that the system of school education is being afflicted with problems, solutions have to be worked out. Research work in appropriate direction would serve the society by helping in evolving better teaching practices, formulating proper policies and programmes, and providing guidance to practitioners. We feel that such an effort, as our present study, would pave the way for successful implementation of Education for All.

Lastly, we would like to state that in this report we have not made any value judgement about the research studies. We have merely presented the titles along with relevant information. **The abstracts, as available in 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Surveys of Research in Education (published by NCERT), are reprinted here with the permission of NCERT.** The Surveys contain Abstracts of educational research in different disciplines from universities all over the country dealing with different sectors of education. They cover independent studies and dissertation papers along with Ph. D. studies. But our study has concentrated only on the Ph. D. level studies in the universities of West Bengal and that too in the Departments of Psychology, Sociology and Education.

## **SECTION - B**

### ***Methodology***

#### **Our Approach**

Out of fifteen State aided universities in West Bengal, nine universities and a Deemed university come under the jurisdiction of the Department of Higher Education. Of the nine universities, we have concerned ourselves with seven, with the exclusion of Netaji Subhas Open University and the West Bengal University of Technology. We have also taken into consideration a Central university, viz. Visva-Bharati. Thus, in all eight universities were considered. The names of the universities and the presence of the Departments of Education, Sociology and Psychology in them is given below:

<b>Sl. No.</b>	<b>University</b>	<b>Department</b>
1.	University of Calcutta	Education, Sociology, Psychology, Applied Psychology
2.	Jadavpur University	Sociology
3.	University of Burdwan	Sociology
4.	University of Kalyani	Education, Sociology
5.	Rabindra Bharati University	Education
6.	University of North Bengal	Sociology
7.	Vidyasagar University	Sociology
8.	Visva-Bharati	Education

(Source:- Annual Report of the Department of Higher Education, 2003-04, p. 107-193 )

Of the 8 universities listed above, the Sociology Department of Jadavpur University has started M.Phil. studies only recently. The Sociology Department of Vidyasagar University was established in this very session, i.e. 2005-06 and the same department at University of Burdwan has not carried out any Ph.D. level research that is relevant to school education. Therefore, these three universities could not be included in our present study.

We would like to add here that while searching for titles relevant to school education, we came few such titles under Anthropology, History and Journalism and Mass Communication (University of Calcutta).

The titles of theses relevant to the different aspects of school education were collected by visiting the central libraries of the following universities of West Bengal:

1. University of Calcutta
2. University of Kalyani



3. University of North Bengal
4. Rabindra Bharati University
5. Visva-Bharati

The abstracts of the theses submitted upto 1992 were collected from the Third Survey of Research in Education (1987), Fourth Survey of Research in Education, Volumes I and II (1991) and Fifth Survey of Educational Research, Volumes I and II (1997 and 2000 respectively) published by NCERT. Prof. M.B. Buch is the Chief Editor of the 3<sup>rd</sup> and 4<sup>th</sup> Surveys. The three Surveys served as the main source books. It may be mentioned here that abstracts of theses from North Bengal University could not be found in any of the Surveys.

### **About the Report**

This report has been arranged in three chapters. Chapter I contains three sections, viz. Introduction, Methodology, Summary of the Findings. Chapter II is divided into two sections. Section A contains list of titles of those theses whose abstracts are available in the three Surveys of Research in Education. Section B, on the other hand, covers the theses whose abstracts are not available in the said surveys and the titles were collected by visiting the libraries of the different universities. In Chapter III we have presented the abstracts printed in the Third, Fourth and Fifth Surveys published by NCERT. The references of the concerned Survey are given along with the title of the theses.

In Chapter II, relevant information are also provided along with the title of the thesis, like name of the author, name of the guide (where available), year of award and broad area of research (as categorized in the Surveys). The titles obtained are arranged according to the year of awarding of degree.

The titles have been assigned code numbers taking the first letter of the name of the university, followed by that of the Department. A number denoting the serial number follows the two letters. For example, the first title obtained under Psychology Department of Calcutta University is assigned the code number CP 01, the second one CP 02, and so on.

<b>Codes Used</b>	<b>University</b>	<b>Department</b>
CE	University of Calcutta	Education
CP	University of Calcutta	Psychology
C Ap	University of Calcutta	Applied Psychology
C An	University of Calcutta	Anthropology
KE	University of Kalyani	Education
NB	University of North Bengal	Political Science, Sociology & Social Anthropology, Centre for Himalayan Studies
RB	Rabindra Bharati University	
VE	Visva-Bharati	Education

## **SECTION – C**

### ***Summary of the findings***

In all 151 titles were short-listed as research studies pertinent to school education. The university-wise breakup of these titles is as follows:

<b>University</b>	<b>No. of theses whose abstracts are available in the Surveys</b>	<b>No. of theses whose abstracts are not available in the Surveys</b>	<b>Total</b>
University of Calcutta	28	46	74
University of Kalyani	31	23	54
University of North Bengal	--	7	7
Rabindra Bharati University	1	1	2
Visva-Bharati	7	7	14
<b>TOTAL</b>	<b>67</b>	<b>84</b>	<b>151</b>

If we consider the **broad areas of research** (only of the 67 theses whose abstracts are available in the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Surveys) under which the theses have been categorized in the three Surveys, we get the picture as depicted below:

<b>Sl. No.</b>	<b>Broad Area of Research</b>	<b>No. of theses</b>				<b>Total</b>
		<b>University of Calcutta</b>	<b>University of Kalyani</b>	<b>Rabindra Bharati University</b>	<b>Visva-Bharati</b>	
1.	Correlates of achievement	4	3	--	2	9
2.	Psychology of education	2	6	--	1	9
3.	Sociology of education	4	--	--	1	5
4.	Mathematics education	1	4	--	--	5
5.	Language Education	--	5	--	--	5
6.	Science Education	2	2	--	--	4
7.	Creativity & Innovation	1	3	--	--	4
8.	Education of SCs, STs and minorities	1	2	--	--	3



9.	Education of the disadvantaged	1	--	--	2	3
10.	Teacher Education	1	1	--	--	2
11.	Curriculum, methods and textbooks	1	1	--	--	2
12.	Education of girls and women	1	1	--	--	2
13.	Educational Technology	--	2	--	--	2
14.	Teaching & teaching behaviour	1	--	--	--	1
15.	Mental Health	1	--	--	--	1
16.	Guidance & counselling	1	--	--	--	1
17.	Learning, motivation and personality	1	--	--	--	1
18.	Organisation, administration and management of education	1	--	--	--	1
19.	Social Science Education	1	--	--	--	1
20.	Secondary Education	1	--	--	--	1
21.	Teaching Strategies	1	--	--	--	1
22.	Elementary Education	1	--	--	--	1
23.	Special Education	--	1	--	--	1
24.	Social Processes	--	--	--	1	1
25.	Educational management	--	--	1	--	1
	<b>TOTAL</b>	28	31	1	7	67

It may be noted that these categorizations are mentioned in the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Surveys of Research in Education published by NCERT. Here we have merely put them together.

It is also evident from the table that the maximum numbers of studies have been carried out under the heads of 'Correlation of achievement' and 'Psychology of education' (9 each). This is followed by 'Sociology of education', 'Mathematics education' and 'Language education' (5 each). Next in terms of number are 'Science education' and 'Creativity and innovation'.

## *CHAPTER - II*





## **SECTION - A**

This section contains titles of the theses whose abstracts are available in 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Surveys of Research in Education published by NCERT (page numbers of the particular Survey are mentioned in Chapter III of this report). The 'broad area of research' of each title too is given as provided in the three Surveys.

### **UNIVERSITY OF CALCUTTA**

#### **EDUCATION**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>	<b>Broad Area of Research</b>
CE 01	The new curriculum of secondary education in West Bengal in the light of curricular history	Indu Ghorui		1980	Curriculum, Methods & Textbooks
CE 02	A study of interest and ability of the secondary school students in Science	B.B. Senapati		1980	Guidance & Counselling
CE 03	Influence of capacity of memorization on scholastic achievement	Utpala Barua	G.B. Kapat	1981	Correlates of Achievement
CE 04	Diagnosis and prevention of the learning disabilities of primary school students in Arithmetic	A. Bhattacharyya		1982	Learning, motivation & personality
CE 05	An enquiry into the factors involved in the learning of Science by adolescent pupils	Gobinda Pada Pal		1982	Correlates of Achievement
CE 06	Educational dynamism in the social perspective of Purulia - a typical underdeveloped district in West Bengal	Hrishikesh Chakrabarti		1984	Sociology of Education
CE 07	Teachers' personality pattern and their attitude towards teaching and related areas	Patitpaban Som		1984	Teacher Education
CE 08	Some determinants of academic performance in pre-adolescent children	Rupali Mitra		1984	Correlates of Achievement



CE 01	The new curriculum of secondary education in West Bengal in the light of curricular history	Indu Ghorui		1980	Curriculum, Methods & Textbooks
CE 09	Improved method of teaching biological sciences in schools of Tripura and West Bengal	Kalyan Chandra Dighal	K.S. Gupta	1985	Science Education
CE 10	Teaching school economics by the personalized system of instruction (PSI) – an experimental study	Dipti Dasgupta		1987	Social Science Education
CE 11	Secondary school education in Calcutta: A study on the total system	Tarun Ranjan Majumdar		1988	Secondary Education
CE 12	An experimental study of the effectiveness of teacher, classroom teaching techniques in relation to students' achievement	Tapan Kanti Gangopadhyay	S.P. Bhattacharyya	1989	Teaching Strategies
CE 13	To study the organizational climate of secondary schools in West Bengal and to correlate it with other variables	Manas Chakrabarti	S.P. Bhattacharyya	1990	Organisation, Administration & Management of Education
CE 14	Diagnosis and remediation of under achievement in compulsory Mathematics in Madhyamik examination in West Bengal	Madan Mohan Chell	S.N. Giri	1990	Mathematics Educations
CE 15	An introduction into the problems of scholastic backwardness of adolescent girl students in and around Calcutta	Smritikana Bhattacharyya	G.B. Kapat	1992	Education of Girls and Women
CE 16	A treatise on the education of backward classes in India since independence with special reference to West Bengal	Kanailal Bandopadhyay	G.B. Kapat	1992	Education of SCs, STs and minorities

## **PSYCHOLOGY**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>	<b>Broad Area of Research</b>
CE 01	The new curriculum of secondary education in West Bengal in the light of curricular history	Indu Ghorui		1980	Curriculum, Methods & Textbooks
CP 01	A study of teacher traits associated with classroom interaction patterns	J. Roy		1981	Teaching and Teacher Behaviour
CP 02	Contribution of some home factors on children's scholastic achievement	U. Sarkar		1983	Correlates of Achievement
CP 03	Environmental influence, academic achievement and scientific aptitude as determinants of adolescent's attitude towards Science stream.	Jayasri Bandopadhyay	Ramanath Kundu	1984	Science Education
CP 04	Frustration reactions of school children associated with - some psychological variables	Jayanti Raychaudhuri		1989	Mental Health



# APPLIED PSYCHOLOGY

Code No.	Title of the Thesis	Name of the Author	Name of the Guide	Year of Publication	Broad Area of Research
CA <sub>p</sub> 01	A probe into the personality of adolescent Bengali girls of Calcutta city for developing an idea of their life problems at High School leaving age	M. Chattopadhyay		1981	Sociology of Education
CA <sub>p</sub> 02	Socially disadvantaged and advantaged children: a psychological study of their relative academic achievements	P.K. Sutradhar		1982	Sociology of Education
CA <sub>p</sub> 03	Study of parent perception and perception of school of adaptive and maladaptive children	Indrani. Majumdar		1983	Psychology of Education
CA <sub>p</sub> 04	Social, psychological determinants of the migratory rural students and their adjustment problems	Mihir Kumar Gangopadhyay		1984	Sociology of Education
CA <sub>p</sub> 05	An influence on the Mathematical model of life adjustment attitude, dispositions of Bengalee students (of Calcutta) of school leaving class	Budhdhadev Bhattacharyya	Sumumar Basu	1985	Psychology of Education

## **APPLIED PSYCHOLOGY**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>	<b>Broad Area of Research</b>
CA <sub>p</sub> 01	A probe into the personality of adolescent Bengali girls of Calcutta city for developing an idea of their life problems at High School leaving age	M. Chattopadhyay		1981	Sociology of Education
CA <sub>p</sub> 06	An investigation into the personality make-up, intelligence and study habit of low and high achievers	Kalpana Sen Barat	R.C. Das	1992	Correlates of Achievement

## **ANTHROPOLOGY**

Besides the four Departments mentioned above dissertations related to school education were submitted in some other Departments as well. These are listed below:

<b>Sl. No.</b>	<b>Title</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>	<b>Broad Area of Research</b>
CAn 01	Primary Education in Calcutta – an anthropological appraisal	Basudeb Datta		1985	Elementary Education
CAn 02	Education among the backward classes in Howrah district, West Bengal	G.R. Mittra		1981	Education of the disadvantaged



# **KALYANI UNIVERSITY**

## **EDUCATION**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>	<b>Broad Area of Research</b>
KE 01	A study in the appreciation of prose and poetry of secondary school children	P.K. Banerjee	Dr. Priyotosh Dutta Roy	1980	Language Education
KE 02	Effectiveness of multimedia programmed materials in the teaching of Physics	M.K. Basu		1981	Educational Technology
KE 03	Scholastic backwardness in the basic processes in Arithmetic – diagnosis and prevention	A.K. Ghosh	Dr. Durgadas Bhattacharyya	1982	Curriculum, Methods and Textbooks
KE 04	A study of the determinants of reading abilities of the students in Bengali	K. Roy	Dr. Durgadas Bhattacharyya	1983	Correlates of Achievement
KE 05	The needs, frustration, intolerance and mental health of adolescent girls reading in certain urban secondary schools in West Bengal	M. Bhattacharjee	Dr. Arati Sen	1985	Psychology of Education
KE 06	A technological approach to preventive teaching for alleviation of learning disabilities in Life Science	U. Bhattacharyya	Dr. Durgadas Bhattacharyya	1985	Psychology of Education
KE 07	A study of the achievement of the students in Chemistry and finding relationship with some of its determinants	G.P. Ghosh	Dr. Durgadas Bhattacharyya	1986	Science Education

KE 08	A cross-sectional study on differential aptitudes of secondary school students	Anjana Bhattacharyya (Chatterjee)		1986 1992	Psychology of Education
KE 09	An investigation into the learning disabilities developed by secondary school students in the area of equation sums in Algebra	Manoj Bhattacharyya	Dr. Kripanath Sinha	1986	Mathematics Education
KE 10	Learning disabilities in the reasoning power of the students in Geometry - diagnosis and prevention	A. Dutta	Dr. Durgadas Bhattacharyya	1986	Mathematics Education
KE 11	A critical study of scientific attitude and aptitude of the students and determination of some determinants of scientific aptitude	Shibani Ghosh	Dr. Durgadas Bhattacharyya	1986	Science Education
KE 12	Effects of variation in advance organizers on the cognitive subsumption in Life Science	S.K. Ghosh	Dr. Malay Kumar Basu	1986	Psychology of Education
KE 13	Reaction to frustration in school children	P.C. Biswas	Dr. A.K. Sarkar	1989	Psychology of Education
KE 14	A critical study of some affective outcomes of the students as predictors of their mathematical ability	Asutosh Pal	Dr. Durgadas Bhattacharyya	1989	Mathematics Education
KE 15	A study on the prognosis of writing abilities with the help of creativity and intelligence of the students	Prasanta Sharma	Prof. Durgadas Bhattacharyya	1989	Language Language





KE 08	A cross-sectional study on differential aptitudes of secondary school students	Anjana Bhattacharyya (Chatterjee)		1986 1992	Psychology of Education
KE 16	Study of divergent thinking in relation to scholastic achievement, cognitive style, self-concept and interest pattern	A.K. Pandey		1989	Creativity and innovations
KE 17	A child's conception of the fundamentals of Euclidean geometry	Debjani Sengupta		1989	Mathematics Education
KE 18	Effects of strategies of instruction on mastery learning	Md. Abdul Odud	Dr. Malay Kumar Basu	1989	Educational Technology
KE 19	Learning disabilities in critical thinking in some areas of Physical Science: Diagnosis and prevention	Anju Biswas	Dr. Durgadas Bhattacharyya	1989	Special Education
KE 20	A cross-sectional study on the differential aptitudes of the students in English	Anjali Bag	Dr. Anima Bhattacharyya	1990	Language Education
KE 21	A critical estimate of the abilities of the students in different aspects of Bengali and finding out their relative interdependence	Sulekha Bhattacharyya	Prof. Durgadas Bhattacharyya	1990	Language Education
KE 22	A study on verbal creativity, general anxiety and self-concept as predictors of creative reading ability of students	Bina Roy	Dr. Durgadas Bhattacharyya	1990	Creativity and innovations
KE 23	A critical appraisal of the abilities of the students in some aspects of English as a second language and finding out some linguistic factors	Saraswati Dey	Dr. Anima Bhattacharyya	1991	Language Education

KE 24	A study in creativity, motor ability and motor creativity of adolescent students	M.C. Ghosh		1991	Creativity and innovations
KE 25	A cross-sectional study on the effect of academic motivation and scientific attitude on science aptitude of students	Dulal Mukhopadhyay	Dr. Durgadas Bhattacharyya	1991	Psychology of Education
KE 26	A cross-sectional study of professional traits of secondary school teachers and their impact upon classroom communication	Dilip Kumar De	Dr. Durgadas Bhattacharyya	1991	Teacher Education: Pre-service and in-service
KE 27	A comparative study between the students belonging to Scheduled Castes and Scheduled Tribes, including the Lodhas, on general intelligence and creativity	Jayprakash Bej	Dr. Durgadas Bhattacharyya	1991	Education of SCs, STs and minorities
KE 28	A study of the impact of some psycho-social determinants on the educational achievement of tribal students of West Bengal	Pritish Kumar Mandal	Dr. Durgadas Bhattacharyya	1991	Education of SCs, STs and minorities
KE 29	A comparative study of the values of some secondary school girls differing in age and in socio-economic and cultural status	Ira Bhattacharyya	Prof. Kulada Prasad Chaudhuri	1991	Education of Girls and Women
KE 30	A study of attitude towards school in relation to interest pattern, self-concept, adjustment and scholastic achievement	Swapan Mukhopadhyaya	Dr. Malay Kumar Basu	1991	Correlates of Achievement
KE 31	A cross-sectional study of the impact of scientific attitude, motivation and self-concept in science upon the achievement of students in Science	Nirjharini Sinha	Prof. Durgadas Bhattacharyya	1991	Correlates of Achievement



# **RABINDRA BHARATI UNIVERSITY**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>	<b>Broad Area of Research</b>
RB 01	West Bengal Board of Secondary Education	Mrinal Kanti Dutta	Dr. Shyamal Kumar Roy	1981	Educational Management

## **VISVA-BHARATI**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>	<b>Broad Area of Research</b>
VE 01	Some behaviour problems of the secondary school students of the district of Burdwan and their causes	N. Das	Prof. H.B. Majumdar	1982	Sociology of Education
VE 02	Education of the Santals – Identification of educational needs, probabilities and problems	Binata Santra	Prof. N.P. Banerjee	1984	Education of the Disadvantaged
VE 03	An evaluative study of Harijan and Tribal Welfare Department High Schools in Orissa in respect of student achievement	Bana Behari Kamila	Dr. N.P. Banerjee & Sri S.K. Sarkar	1985	Education of the Disadvantaged
VE 04	Identification of school climate and study of its effect on the scholastic achievement and development of certain personality characteristics of secondary schools	Dilip Kumar Mukhopadhyaya	Prof. N.P. Banerjee	1988	Correlates of Achievement
VE 05	Teachers as perceived by the society	D. Pazhaniswani	Prof. Arati Sen & Dr. D.P. Mukherjee	1989	Social Processes
VE 06	A study of the determinants of scholastic achievement in rural and urban areas	Malabika Ganguly	Prof. N.P. Banerjee	1989	Correlates of Achievement
VE 07	An enquiry into the nature of self-concept in the area of competence and its impact on mental health and academic achievement	Rupa G. Burwani		1991	Psychology of Education

## **SECTION – B**

In this section we have listed the titles of those theses whose abstracts are not available in the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Surveys of Research in Education and were collected by visiting the Central Libraries of the respective Universities

### **UNIVERSITY OF CALCUTTA**

#### **EDUCATION**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>
CE 17	Curriculum innovation in school Mathematics – the case for teaching probability in middle schools	Aditi Bandopadhyay	S.N. Giri	1982
CE 18	A study of educational problems and guidance needs of SC / ST female students of secondary stages in Tripura	Sabitri Bhattacharyya	B.B. Bhattacharyya	1983
CE 19	A critical study on the philosophical, psychological and sociological basis of Work Education as a subject in primary and secondary school curriculum	Sampa Chakrabarti	B.B. Bhattacharyya	1983
CE 20	Development of an achievement test in Physical Science – for high school students	A. Krishna Mondal	G.B. Kapat	1984
CE 21	An investigation of the problems of education in multireligious and multilingual poverty stricken slum area of Calcutta	Manjusha Mukhopadhyay	Jyotiprasad Bandopadhyay	1989
CE 22	A critical analysis of achievement in general Physics of students of class IX in the schools of West Bengal	Rabindra Kumar Saha	S.K. Gupta	1990
CE 23	Effectiveness of Secondary school teachers' training programme in Tripura	Manas Deb	S.P. Bhattacharyya	1992
CE 24	Development of secondary education in Tripura since independence	Pratyush Ranjan Deb	Jasobanta Roy	1994

CE 25	A study of new primary education in West Bengal: Focus on Calcutta	Mita Mitra	T.R. Majumdar	1994
CE 26	An investigation into the relationship between television viewing and students' learning	Swapna Sen		1994
CE 27	Personality and interest pattern of progressive, regressive and stable achievers	Nabaruna Mukhopadhyay	R.C. Das	1995
CE 28	Learning strategy – its relationship with environmental factors, course perception and academic performance	Malay Kumar Sen	Pranab Kumar Chakrabarti	1995
CE 29	A critical study of the development of Secondary Education in Hindi medium schools in Calcutta	Om Prakash Pandey	Jasobanta Roy	1996
CE 30	Metropolitan area since 1947 Ecological perspective of Science education in deprived society	Subir Nag	Pranab Kumar Chakrabarti	1997
CE 31	Parental beliefs about education and child's development and its relationship with school performance – a cross cultural study	Elizabeth C. Basant	P.K. Chakroborty	1998
CE 32	FIACS profile for teaching secondary school subjects in Calcutta	Swapna Basu	Tarun Ranjan Majumdar	1998
CE 33	Emotional stability pattern and attitude towards teaching of teachers	Neeta Dang	Patit Paban Som	1998
CE 34	A study of inspection and supervision of primary schools in West Bengal with special reference to the southern region	Purnima Basu	Late Dr. S.P. Bhattacharyya and Dr. Mita Banerjee	1999
CE 35	Personality variables and attitudes of science teachers towards teaching	Sahadeb Chandra Kar	P. Som	1999
CE 36	Geometrical intuition among first generation learners	Nandini Chakrabarti	Dr. Debjani Sengupta	2000
CE 37	Development of environmental awareness through the study of Life Science in the secondary schools of West Bengal	Asit Kumar Das	P.K. Chakroborty	2001



CE 38	Development of environmental awareness through the study of Life Science in the secondary schools of West Bengal	Asit Kumar Das	P.K. Chakroborty	2001
CE 39	Crossgrade study of students' understanding of the concept of buoyancy	Chaitali Thakur	Debjani Sengupta	2001
CE 40	A critical enquiry into the contribution of Serampore Mission towards vernacular education in Bengal	Bijaya Bandopadhyay	Dipti Sanyal	2004
CE 41	Development and standardization of an achievement test in Physical Science	Swapna Debnath		2004
CE 42	A study of non-detention policy in relation to dropout and wastage in Primary education in West Bengal	Md. Kutubuddin Halder	Sharmishtha Chakraborty	2004

### **PSYCHOLOGY**

Code No.	Title of the Thesis	Name of the Author	Name of the Guide	Year of Publication
CP 05	Factors of academic success	Bandana Das Gupta		1984
CP 06	An investigation into some behavioural aspects of adolescents	Nikhil Bikash Mallik	P.K. Chattopadhyay	1986
CP 07	An enquiry into the dimensions of adjustment and academic achievement	Arundhati Pal	Maya Deb	1989
CP 08	Consequences of social and economical deprivation on academic achievement	Rumki Chattopadhyay	Manjula Mukhopadhyay	1993
CP 09	To diagnose vocational training possibilities of orthopaedically handicapped persons	Chayanika Ghosh	N.K. Bhattacharyya	1993
CP 10	Effects of sex, gender role identity and motivational factors on academic achievers	Urmi Chakrabarti	Jayanti Basu	1998
CP 11	Higher Secondary science achievement as related to scientific aptitude, study habits, cognitive style, self-concept and neuroticism.	Paramita Ghosh	Ramanath Kundu	1998

## **APPLIED PSYCHOLOGY**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>
CA <sub>p</sub> 07	Cognitive style and personality needs of the high and low achievers in Science and Humanities at H.S. level	Swapna Ghosh	S.N. Ghosh	1989
CA <sub>p</sub> 08	A study of the drug cognizance, personality profile and value modes of H.S. school students of Calcutta	Indira Das	A.K. Chattopadhyay	1992
CA <sub>p</sub> 09	A study on the impact of Minimum Learning Programme on the performance measures of Bengalee children in the primary school leaving class	Surendranath Bandopadhyay	Sukumar Basu	1993
CA <sub>p</sub> 10	A study of creativity, intelligence, achievement and motivation and personality traits of low, average and high academic achievers including rank achievers in public secondary Exam	Rajasri Niyogi	J.M. Mondal	1993
CA <sub>p</sub> 11	A study on the acquired competencies of primary school leaving children in regard to their non-scholastic abilities	Dipesh Chandra Nath	N.K. Bhattacharjee	1996
CA <sub>p</sub> 12	A study on the mentality of Bengalee girl students of H.S. schools towards indulgence in committing condemnatory activities	Mina Sen		1997
CA <sub>p</sub> 13	A study on the social morale, locus of control and classroom climate perception of H.S. students of Calcutta	Subarna Sen	N.K.	1998
CA <sub>p</sub> 14	A study on the attainment level of the Bengalee neo-literates in the light of a custom-built functional literacy achievement test measures	Himani Maiti	N.K. Bhattacharyya	1999

CA <sub>p</sub> 15	A study on the relationship between social competence and scholastic capability of secondary school students of Calcutta	Susmita Ukil	N.K. Bhattacharyya	1999
CA <sub>p</sub> 16	A study on the efficacy of formal school education in acquiring the expected level of knowledge among the school students of Calcutta	Susmita Niyogi	R. Basu	2003

### **Other Departments**

Sl. No.	Department	Title	Name of the Author	Year of the Guide	Year of Publication
1.	History	Public policy and growth of Women's Education in India between 1947 and 1985	Tapati Sengupta	Suranjan Das	1997
2.	Journalism	Role of media on the development of women's education in India (1980-1990)	Indrani Raha	Sunit Kumar Mukhopadhyay	1996



# **KALYANI UNIVERSITY**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>
KE 32	Disabilities in problem solving of the students in physical science – diagnosis and prevention and determination of the transfer effect of problem solving ability on school subjects	Tripti Dutta	Dr. Lakshmi Mukhopadhyay	1994
KE 33	A study on the impact of some psychosocial hindrances faced by the girl students on their school achievement	Anita Bhattacharyya	Dr. Durgadas Bhattacharyya	1994
KE 34	A study of the impact of scientific vocabulary, scientific concepts, scientific understanding and motivation in science on the achievement of students in science	Kamal Krishna De	Dr. Anima Bhattacharyya	1995
KE 35	A study of the effect of test anxiety, general anxiety, socio-economic status and academic motivation on the achievements of the students in Life Science	Kajal Kanti Ghosh	Durgadas Bhattacharyya	1995
KE 36	Some psychological and linguistic factors determining the achievement of the students in English as second language	Shyamal Uday Chowdhury	Dr. Anima Bhattacharyya	1995
KE 37	A comparative study of teaching physics in different courses at the higher secondary levels of West Bengal	Swades Ranjan Samanta	Dr. Nirmal Kumar Roy	1996
KE 38	Some indigenous techniques in improving the basic Arithmetical skills of Indian school children	Jyotirmoy Nandi	Dr. Kripanath Sinha	1997
KE 39	A critical study of teacher education at elementary level of West Bengal	Sarbani Das	Dr. Biswa Ranjan Purkait	1997
KE 40	Study of some psych-social aspects of the students and their impact on handwriting ability	Pratima Bhattacharyya	Dr. Anima Bhattacharyya	1997

KE 41	To identify the difficulties of Santal students in the western zone of west Bengal in their studies through Bengali medium at the primary level	Santosh Kumar Das	Dr. Nimai Kumar Roy	1997
KE 42	A comparative study on some cognitive abilities and psycho-social traits between normal and physically handicapped school-going children	Basudev Banerjee	Dr. Anima Bhattacharyya	1997
KE 43	Interrelational study between fundamental and social values of the pupils of different educational grades and socio-economic strata	Manisha Datta (Guha)	Dr. Nani Gopal Ghosh	1998
KE 44	A study on relationship of academic achievement with creativity, intelligence and cognitive style of primary school	Subrata Saha	Dr. P.C. Biswas	1998
KE 45	A study of some cognitive and non-cognitive predictors of academic achievement	Bharati Roy	Dr. P.C. Biswas	1999
KE 46	Study on learning disabilities of the students in English – diagnosis and prevention	Aloke Bhattacharyya	Dr. Anima Bhattacharyya	2000
KE 47	Education about religion and its impact on the development of some social values as well as secularism among school children	Chaitanya Mondol	Dr. Debkumar Dey	2000
KE 48	Effects of variation in strategies of Bruner on the attainment of concepts	Ratan Kumar Ghosh	Dr. Kripanath Sinha & Dr. Sanat	2000
KE 49	in Life Science Cost-value-profit (benefit) analysis of educational investment on some selected strata – a case study of secondary and higher secondary education in West Bengal	Tarak Nath Mukhopadhyay	Ghosh (RBU) Dr. Nanigopal Ghosh	2001
KE 50	A comparative study of teaching Biology in different courses at the Higher Secondary level in West Bengal	Deb Prasad Sikdar	Dr. N.K. Roy	2001

KE 51	An investigation into the socialistic components in present Indian education system	Nishith Kumar Basak		2004
KE 52	Influence of creativity, intelligence and motivation upon achievement in Mathematics	Subhash Chandra Ray	Dr. Nanigopal Ghosh	2004
KE 53	The efficacy of teaching biographies of ideal persons in the development of social values among school children	Marilla Anne D'Souza	Dr. Debkumar De & Subhalakshmi Nandi	2004
KE 54	A study of the effectiveness of vocational education at the secondary level in West Bengal	Uma Pan	Dr. D.P. Sikdar	2004

### **NORTH BENGAL UNIVERSITY**

Code No.	Title of the Thesis	Name of the Author	Name of the Guide	Year of Publication
NB 01	Education and social change among the STs of North Bengal	Subrata Syam Choudhury		1984
NB 02	Wastage and stagnation in schools in the rural areas of West Bengal: A sociological study	Gorachand Khan		1985
NB 03	Administration of schools: A study of two districts in West Bengal	Rita Bhowmik	D.J. Bhowmik	1994
NB 04	Role of Education in socioeconomic development of Darjeeling hills	Sudakshina Bagchi (Purakayastha)	M. Dasgupta & R.Sahu	1998
NB 05	Girlchild among Adibasi plantation labourers of North Bengal: a study of their social situation	Sukanya Ghosh Hazra	S.R. Mandal	2000
NB 06	Muslim women education in some villages of West Bengal and Bangladesh	Hosain Mahmud Shahadt	S.R. Mandal	2001
NB 07	Administering DPEP – an evaluation at the district of Kochbehar	Prasenjit Deb	D.J. Bhowmik & D.K. Sarkar	2002



## **RABINDRA BHARATI UNIVERSITY**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>
RB 02	Infrastructure and investment in Primary Education – a situational analysis in selected areas of West Bengal	Anupam Chakraborty	Dr. Rajkumar Sen	2004

## **VISVA-BHARATI**

<b>Code No.</b>	<b>Title of the Thesis</b>	<b>Name of the Author</b>	<b>Name of the Guide</b>	<b>Year of Publication</b>
VE 08	Identification of an effective instructional strategy for mastery learning in science	Tarak Nath Pan	Prof. H.B. Majumdar & Prof. N.P. Banerjee	1985
VE 09	Effectiveness of programmed-text in minimizing individual difference	Biswanath Roy	Prof. N.P. Banerjee	1987
VE 10	Teaching of English composition through concept organization	Ranajit Mukherjee	Prof. N.P. Banerjee	1991
VE 11	<i>Samaj Unnayandharmi Shikshar Prasar: Rabindranath O Adhunikkal</i>	Kanailal Ghosh	Dr. D.P. Mukherjee	1993
VE 12	<i>Bangadesher Samajik Patabhumite Rabindranather Shiksha-pratishthaner Bibartaner Itihas</i>	Dilip Kumar Thakur	S.K. Sarkar & Dr. D.P. Mukherjee	1993
VE 13	Identification of problems of first generation learners in elementary education	Malay Sarkar	Prof. Arati Sen	1993
VE 14	(A) Study of school climate, staff cohesion, classroom learning climate and students' achievement in secondary schools	Bandana Chatterjee	D.K. Mukhopadhyay	2001

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## *CHAPTER - III*



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***Abstracts of Theses from 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Surveys of Educational Research, NCERT (reprinted with the permission of NCERT)***

**UNIVERSITY OF CALCUTTA**

**EDUCATION**

**1. (CE 02) :-** For details see p. 21 of this report.

**Title of the Thesis :-** A study of interest and ability of the secondary school students in Science.

**Reference :-** 3<sup>rd</sup> Survey, p. 461

**Objectives :-**

1. To determine the exact nature of relationship between interest and ability.
2. To suggest some dependable criterion for guiding students in the science stream of the present school education.

**Methodology :-**

**Sample –** 207 students of age group 17+ chosen at random from among students of class XI (science stream) of 12 randomly selected H.S. schools of West Bengal.

**Tools –** Intelligence Test by Pal and Bose, the Bengali adaptation of Strong Vocational Interest by Deb; Scientific Aptitude Test by Ghosh and Achievement Test on Physical Science designed on the basis of questions used in the H.S. Examination 1975, of WBBSE.

**Analysis –** Correlational methods for analysis of data that included the score obtained in the school annual examination as well as in the H.S. final Examination.

**Major Finding :-**

Intelligence and interest taken together were a better predictor of achievement in science than interest or intelligence alone.

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**2. (CE 03) :-** For details see p. 21 of this report.

**Title of the Thesis :-** Influence of capacity of memorization on scholastic achievement.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 816

**Objectives :-**

1. To determine common relations, if any, among different kinds of memory.
2. To ascertain the nature of sex differences, if any, in memory abilities.
3. To obtain the relation between memory and intelligence.
4. To find out the relative influence of different kinds of memory on scholastic achievements.
5. To consider the position of memory and intelligence as determiners of academic performance.

**Methodology :-**

**Sample -** 200 students, 100 boys and 100 girls of age 9-11 years of class VI of 2 high schools.

**Tools -** Memory test for story, sentence, design and digits; Intelligence Test developed and standardised by G.B. Kapat; Kuppuswamy's Socio-economic Status Scale.

**Analysis -** Factor analysis with varimax rotation and regression analysis.

**Major Findings :-**

1. Boys and girls were not different with respect to memory for story, sentence, design, digits and total memory.
  2. Memory for digits had a definite but small relationship with memory for a story.
  3. Memory for digits had a very low relationship with intelligence; also memory tended to be independent of intelligence.
  4. Boys and girls were not different with respect to intelligence and total scholastic achievement.
  5. If learning materials were so presented as to appeal both to intellective and non-intellective aspects of the educands, they would engender better learning and achievement.
  6. Children of the age group 9-11 years understood design more meaningfully than stories.
  7. Meaningful learning occurred through meaningful visual aids or iconic signs.
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**3. (CE 04) :-** For details see p. 21 of this report.

**Title of the Thesis :-** Diagnosis and prevention of the learning disabilities of primary school students in Arithmetic

**Reference :-** 3<sup>rd</sup> Survey, p. 334

**Objectives -**

1. To diagnose the detailed patterns of disabilities in two areas of arithmetic – common fractions and decimal fractions.
2. To try out, experimentally, teaching methods which would prevent development of learning disabilities in these areas.

**Hypotheses :-**

1. The experimental groups taught by audio-visual materials and techniques would achieve significantly more than the controlled groups taught by the traditional methods.
2. Learning through audio-visual materials and techniques would cause more prolonged retention than that by the conventional method.
3. The experimental groups would show more interest in the lessons than the controlled groups.

**Methodology :-**

**Sample I –** 450 students of class V for common fractions, and 500 students of Class V for decimal fraction.

**Sample II –** Class IV students in 4 primary co-educational schools (control and experimental).

**Tools –** Diagnostic tools in common fractions and decimal fractions developed by the investigator; individual structured interviews for sample I.

Duplicated method experiments for sample II. The experimental groups were treated with audio-visual methods and techniques for which 11 teaching units were developed. The control groups were treated by the conventional methods of teaching. Intelligence Test (Kamat) was also used before the start of the experiment..

**Analysis –** Test-retest reliability coefficient, validity coefficient, patterns of disabilities, analysis of covariance.

**Major Findings :-**

1. The test-retest reliability coefficient of the diagnostic tool in common fraction was 0.91 and that of the one in decimal fraction was 0.89. When the tools were validated against individual structured interviews, the validity coefficient was found to be 0.95 in either of these areas.
2. The major patterns of disabilities diagnosed were 44 in the case of common fractions and 30 in the case of decimal fractions.
3. The covariance analysis revealed :
  - i) The first hypothesis was retained on the ground that the experimental groups had achieved significantly more than the control groups.
  - ii) The experimental groups showed better results and prolonged memory of the learned materials than the control groups.
  - iii) Circumstantial evidence suggested the retention of the third hypothesis.

4. (CE 05) :- For details see p. 21 of this report.

**Title of the Thesis** :-An enquiry into the factors involved in the learning of Science by adolescent pupils

**Reference** :- 3<sup>rd</sup> Survey, p. 679

**Objective** :-

To investigate and analyse the different factors or abilities involved in the learning of science subjects with special reference to physics and chemistry by adolescent pupils.

**Methodology** :-

**Sample** – 200 pre-adult age group students of 11 schools in Calcutta and its vicinity. Incidental sampling was done.

**Tools** – Intelligence Test, Guilford's Problem Solving Ability Test in arithmetic, an aptitude test, Ballard's Three-minute Arithmetic Test, Science Achievement Test.

**Analysis** – Correlation matrix and centroid factor matrix were prepared.

**Major Findings** :-

1. There was a common factor in all the 5 tests where general intelligence or educability played significant roles.
  2. General ability or g factor, scientific aptitude/reasoning, speed and precision and problem-solving ability were significantly responsible for the learning of science.
  3. Schools belonging to the advanced schools had done better in science achievement test than those in less advanced schools having the same or more or less identical ability.
  4. Good schooling, interest and industriousness also played an important role in the learning of science.
  5. There was a significantly high positive correlation between the test scores related to the proposed factors and the marks of physics and chemistry in Higher Secondary Examination conducted by the West Bengal Board of Secondary Education.
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5. (CE 06) :- For details see p. 21 of this report.

**Title of the Thesis** :-Educational dynamism in the social perspective of Purulia – a typical underdeveloped district in West Bengal

**Reference** :- 4<sup>th</sup> Survey, Volume I, p. 139

### **Objectives :-**

1. To see to what extent the manpower and limited material resources of education were wasted in a backward region at the elementary stage.
2. To understand the nature of relations between various social stratifications and demand for elementary education.
3. To understand the nature of supply facilities for elementary education in the region under study.
4. To understand the nature of supply of informal and non-formal agencies of education at the elementary level in a backward society.
5. To determine the various socio-economic and socio-cultural problems hindering educational dynamism in a backward society.
6. To understand the nature of relations between occupation and demand for elementary education.

### **Methodology :-**

**Sample** – Students of 10 primary schools and 8 secondary schools, 46 teachers and 26 social workers of 8 villages.

**Tools** – Community information blank concerned with general information about the village community and children between 5+ and 14+; study schedule for school information concerned with identity, educational opportunity and strength, non-local students and teachers; check-list for teachers and social workers; interview schedule for guardians.

**Analysis** – Frequency counts converted to percentages and ranks. Design was classificatory in nature.

### **Major Findings :-**

1. The overall rate of educational dynamism was 36-54% for boys and 18% for girls. It was highest for caste Hindus, followed by SCs, and STs, and lowest for Muslims.
  2. All the groups created demand for primary education. It was, however, directed mostly towards boys. Demand was very poor for upper primary education for girls of backward classes.
  3. Educational opportunities in terms of their utility to the community did not directly resist educational dynamism, but it was not conducive to mass-scale programmes of primary education.
  4. Teachers, social workers and guardians differed in their opinions about non-participation: teachers considered 'ignorance/illiteracy of guardians' as the major cause for both boys and girls, while social workers considered the 'prevalent social habit of not sending children to school' and guardians considered 'inconvenient school hours' (for boys) and 'prevalent social habits' (for girls) as major causes. Guardians preferred afternoon school hours.
  5. The rates of educational dynamism of agricultural and non-agricultural occupational home backgrounds were 61% and 29% respectively. For girls these rates were 53% and 8%.
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**6. (CE 07) :-** For details see p. 21 of this report.

**Title of the Thesis :-** Teachers' personality pattern and their attitude towards teaching and related areas

**Reference :-** 4<sup>th</sup> Survey, Volume II, p. 993

**Objectives :-**

1. To find the structure-pattern which is likely to suggest better attitudes towards teaching and related areas.
2. To find the descriptive personality pattern of teachers with reference to the dimension of extraversion-introversion and the traits involved in it.
3. To find the variation in the extraversion variables with reference to sex and impact of experience on them.
4. To find the descriptive attitude pattern of teachers with reference to the teaching profession and pupils.
5. To observe the relative importance of the extaversion variables in the determination of teachers' attitudes towards teaching, the teaching profession, classroom teaching and pupils.
6. To identify the extraversion tables which formed, in general, a combination of valid predictors for the respective attitudes.

**Methodology :-**

**Sample** – B.Ed. students of training colleges were chosen. 75 in-service male teachers, 65 in-service female teachers, 50 fresher male students and 60 fresher female students.

**Tools** – A modified version of Eysenck's and Wilson's Personality Inventory was used. The reliability of the tool was found to be 0.79 (by the split-half method) and the internal consistency was 0.85. The concurrent validity with Joshi's MTAI was 0.023. The research design was a factorial analysis.

**Analysis techniques** – Correlation, factor analysis and multivariate regression (linear) analysis.

**Major Findings :-**

1. The secondary teachers were neither extrovert nor introvert and they could be tentatively described as lacking patience but possessing sociability, sobriety, carefulness, temporal thought, introspection, concentration and mental exertion, in terms of their extroversion-introversion traits.
2. Male teachers were found to be more initiating, expressive, careful, introspective, mentally exertive and concentrated than female teachers. But there was no difference between them on extraversion, and experience had a positive effect on stoicism for either sex.

3. Teachers were normal in respect of teacher attitudes towards pupils.
  4. Female teachers tended to be higher than males in their attitude towards teaching, the teaching profession and pupils. Experienced female teachers were significantly higher than experienced male teachers on the first two attitudes but moderately high on the third.
  5. Teaching attitude as well as the attitude towards the profession correlated significantly with patience, initiative, carefulness, stoicism, extropection and responsibility.
  6. Extraversion had no significant association with the attitudes but it was moderately negatively correlated with the teacher attitudes other than that towards classroom teaching. Further, introverts tended to have favourable attitude towards pupils.
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**7. (CE 08) :-** For details see p. 21 of this report.

**Title of the Thesis** :- Some determinants of academic performance in pre-adolescent children.

**Reference** :- 4<sup>th</sup> Survey, Volume I, p. 837

**Objectives** :-

1. To see the variation in academic achievements and its correlates with reference to schools.
2. To find out sex differences with regard to academic achievement, intelligence, achievement motivation, extraversion and neuroticism.
3. To study the relationship between intelligence, achievement motivation, extraversion and neuroticism for both sexes.
4. To ascertain the pattern of prediction of academic achievement from its correlates, indicating the contribution of sex.

**Methodology** :-

**Sample** – 400 students, 200 boys and 200 girls, of classes IV to VII, and age 9+ to 13+.

**Tools** – Group Intelligence Test in Bengali for juniors by G.B. Kapat; questionnaire in Bengali for achievement motivation constructed and standardized by Durgadas Bhattacharyya; Eysenck's Personality Inventory for Juniors adopted in Bengali by Arati Sen; and students' annual examination marks.

Academic achievement was the criterion variable and the predictor variables were intelligence, achievement motivation, extraversion, neuroticism and sex.

**Analysis** – Product-moment correlation and linear regression analysis.

**Major Findings** :-

1. Intelligence was the most significant correlate of achievement, irrespective of sex.

2. Achievement motivation and extraversion positively and significantly correlated with academic achievement for both sexes but both lost their significant effect on academic achievement when intelligence was partialled out.
  3. Students possessing relatively higher extraversion tended to achieve relatively higher, but neuroticism was not a factor that influenced achievement.
  4. There were no sex differences at the pre-adolescent level with regard to intelligence, achievement motivation and extraversion, but the boys were more neurotic than the girls.
  5. The prediction equation of academic achievement from its correlates accounted for three-fifths of the variants and it did not significantly vary with the sexes.
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**8. (CE 09) :-** For details see p. 22 of this report.

**Title of the Thesis** :- Improved method of teaching biological sciences in schools of Tripura and West Bengal

**Reference** :- 4<sup>th</sup> Survey, Volume I, p. 728

**Objectives** :-

1. To explore how to make life science teaching lively, realistic and interesting to the students.
2. To attempt scientifically the improvement of the present methods.
3. To remove drudgery in the teaching of biological science.
4. To prepare a better method, which was an extraction from the existing methods, and more scientific and refined.

**Methodology** :-

**Sample** - 500 students of class IX from 5 schools, 4 in Tripura and 1 in West Bengal.

**Tools** - Comparative survey with 2 questionnaires.

**Analysis** - Graphical representations, product-moment correlation.

**Major Findings** :-

1. There was a significant difference in the effectiveness of 'self-activity method', 'life science club method' and 'audio-visual method'.
  2. Two or three methods when combined, formed an improved one on the basis of their similar nature. Combinations of methods could be made according to the needs of the teacher.
  3. Preparation of charts and models, collection of specimens through local excursions, organization of science exhibitions by the students, arrangement of film shows by the school, and orientation programmes for life science teachers brought better results.
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**9. (CE 10) :-** For details see p. 22 of this report.

**Title of the Thesis :-** Teaching school economics by the personalized system of instruction (PSI) – an experimental study.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 682

**Objectives :-**

1. To explore the usability of the Personalised System of Instruction (PSI) in teaching economics to students at school level in India.
2. To explore the effects of two different forms of experimental variables – PSI and the Conventional Lesson Plan (CLP) method.

**Methodology :-**

**Sample** – 2 groups of students of class IX of a secondary school divided into two equivalent groups on the basis of the last annual examination marks.

One group was taught by the PSI and the second by the CLP approach. Each group was taught 15 lessons. Each period had a duration of 40 minutes. The units in the economics syllabus were converted into 15 PSI units and also 15 CLP units. The same teacher taught both classes.

**Tools** – A comprehensive post test (CPT-1) and an attitude test (AT-1) were administered on the day following the completion of the 15<sup>th</sup> unit. After a gap of 14 days, the same tests were re-administered on both groups to test retention.

**Analysis** – Analysis of variance and t-test were used for data analysis and drawing conclusions.

**Major Findings :-**

1. The mean achievement of pupils taught by the PSI approach was not better than that of pupils taught by the CLP method.
  2. The PSI and CLP group pupils did not differ in their attitudes.
  3. As regards retention, the PSI group scored significantly more than the CLP group but there was no significant difference in the attitude of both the groups.
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**10. (CE 11) :-** For details see p. 22 of this report.

**Title of the Thesis :-** Secondary school education in Calcutta : A study on the total system

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1184

### **Objective :-**

To make an in-depth study of the secondary school system in relation to its significant components – schools, pupils, teachers, guardians, curriculum, timetable and environment- in order to locate its points of weakness as well as potentialities revealing thereby a clear picture of the system.

### **Methodology :-**

The data were gathered both from primary as well as secondary sources. Documents and records constituted the primary source of data. A field sample survey based on representative number of all types of secondary schools of Calcutta as samples yielded the primary data which was analysed to arrive at certain definite conclusions.

### **Major findings :-**

1. Many changes brought about at the stage of school education in West Bengal after Independence had often been implanted in haste without necessary care and precaution, as a result of which the expected objectives and targets could not be achieved.
  2. Curricular and organizational changes created certain gaps and confusion.
  3. Pupils faced problems under the pressure of abrupt changes.
  4. Guardians expressed fears and difficulties in regard to their wards' education.
  5. The educational environment in schools was found to be far from satisfactory, lacking in many essential requirements.
  6. The relationship among the components under study revealed certain discordant features disturbing the equilibrium of the total system and its smooth functioning.
  7. Teachers' orientation and awareness did not tally properly with the process of changes.
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**11. (CE 12) :-** For details see p. 22 of this report.

**Title of the Thesis :-** An experimental study of the effectiveness of teacher, classroom teaching techniques in relation to students' achievement.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1407

### **Objective :-**

To find out the effectiveness of four techniques of teaching – lecturing (T1), lecturing and explanation (T2), lecturing and explanation with questioning-answering (T3), and lecturing and explanation with questioning-answering by using feedback (T4) – on the development of knowledge (X1), comprehension (X2), and application ability (X3) as well as the total achievement (X4) of the pupils in a given teaching-learning situation. The pupils were studying in class IX, and the content of teaching was selected from history.

### **Methodology :-**

**Sample** – 100 students of class IX, divided into 4 groups, of a Bengali medium school in Howrah, West Bengal. The 15 teaching units were planned in lessons of 4 types.

**Tools** – Desai-Bhatt Group Test of Intelligence; Socio-economic Status Scale of Kuppaswamy; Pre-test of Achievement of history for class IX; Lesson-End Tests and Post-achievement Test.

**Analysis** – Descriptive statistics, product-moment correlation, analysis of variance, t-test, item difficulty index and split-half method of reliability coefficient.

### **Major Findings :-**

1. Technique T2 (lecturing and explanation) showed more effectiveness than T1 (lecturing) for knowledge, comprehension and total achievement at the post-test level.
2. Technique T3 (lecturing and explanation with questioning-answering) showed more effectiveness than T2 (lecturing and explanation) and T1 (lecturing) at the post-test level.
3. Technique T4 (lecturing and explanation with questioning-answering by using feedback sequence) showed more effectiveness than T3, T2 and T1 at the post-test level.

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**12. (CE 13) :-** For details see p. 22 of this report.

**Title of the Thesis :-** To study the organizational climate of secondary schools in West Bengal and to correlate it with other variables.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1818



### **Objectives :-**

1. To develop a Bengali version of Sharma's School Organisational Climate Description Questionnaire (SOCDQ, English version).
2. To test the practical applicability of the newly developed SOCDQ (Bengali version) on a properly selected random sample of Bengali medium secondary schools in West Bengal.
3. To identify and classify the organizational climates of these schools.
4. To compare the results of these studies with those of Sharma's.
5. To find out the extent of relationship between the school organizational climate and
  - a) leadership behaviour of the headmaster;
  - b) job satisfaction of the students;
  - c) academic motivation of students;
  - d) socio-economic status of students;
  - e) school effectiveness.

### **Methodology :-**

**Sample** – 86 boys' and 46 girls' schools of Calcutta and 24 Parganas in West Bengal. The total number of respondents from 132 schools was 1672 teachers, covering both male and female.

**Tools** – SOCDQ; Leadership Behaviour Description Questionnaire (LBDQ); and five point rating scales.

**Analysis** – Mean, SD, simple rank difference correlation and ANOVA.

### **Major Findings :-**

1. It was found that SOCDQ (English version), if adopted in Bengali, could work in the West Bengal context.
  2. Out of 132 Bengali medium secondary schools of the present sample, 16, 15, 21, 27, 39 and 1 schools were perceived by their teachers as having respectively, an open, autonomous, familiar, controlled, paternal and closed type of climate. This arrangement had been arrived at on the basis of mean 'esprit' scores of each climate type.
  3. The paternal climate was the most frequently perceived (29.55%) (climate in the present sample followed by 'controlled' (20.45%), 'familiar' (15.91%), open (12.12%), 'autonomous' (11.36%) and 'closed' (10.61%) climates, respectively.
  5. Significant and positive correlations were found between the school organizational climate and the leadership behaviour of the principal, the job satisfaction of the teacher and school effectiveness.
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**13. (CE 14) :-** For details see p. 22 of this report.

**Title of the Thesis :-** Diagnosis and remediation of under achievement in compulsory Mathematics in Madhyamik examination in West Bengal

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1277

**Objectives :-**

1. To identify different kinds of difficulties related to underachievement of students in mathematics lesson.
2. To seek out the types of errors which are identified from the performances of the students in their answer scripts.
3. To find out the factors, according to the opinion of the students, teachers and guardians, that are responsible for underachievement in mathematics at the secondary level.
4. To know the extent to which the procedure of evaluation is responsible for the underachievement.
5. To know the reinforcers and noises in communicating mathematical principles to learning.
6. To find out the remediation programme that should be suggested for students, teachers and others for obtaining better achievement in mathematics at the secondary level.
7. To find out what should be the role of the authority or the management in implementing the remedial programme.

**Methodology :-**

**Sample** - Urban, semi-urban and rural students of classes VI to X of West Bengal.

**Tools** - The case study method was used in collecting the data.

**Analysis** - Mean and rank differences correlation.

**Major Findings :-**

1. The main difficulties faced by students included, concept gaps, confusion in understanding mathematical language, stereotypes way of presenting contents and lack of openness in teaching.
2. The major mistakes found in the performances of students and teacher trainees in the areas include mathematisation of verbal problems, interpretation of mathematical results and learning new topics in mathematics.
3. Underachievement was caused due to lack of understanding of the mathematical concepts of the earlier stage, and the abstract nature of mathematics.
4. Errors were caused due to the versatility and variability of contents, lack of time, etc.
5. Noises in the channel of message were fear, anxiety, psychological imbalance, the faculty's arrangement of contents.
6. Reinforcers in the channel of learning were readiness, interest, active involvement, use of effective materials of instruction and learning efficiency.

**14. (CE 15) :-** For details see p. 22 of this report.

**Title of the Thesis** An introduction into the problems of scholastic backwardness of adolescent girl students in and around Calcutta

**Reference** :-5<sup>th</sup> Survey, Volume II, p. 1693

**Objectives** :-

1. To discover the intellectual as well as some non-intellectual factors behind the scholastic backwardness of the girl students.
2. To suggest in this connection, appropriate remedial measures.

**Methodology** :-

**Sample** – 250 adolescent girl students were selected for investigation. Only Bengali medium schools were included in the sample. The respondents were selected from those who had repeated a grade and had obtained 30% marks and below.

**Tools** – Intelligence Test by A.G.B. Kopat; Eysenck Personality Inventory; Achievement Motivation Questionnaire by Durgadas Bhattacharyya, Interviews and Achievement Test on Bengali by the investigator.

**Analysis** – Means, SD, partial and multiple correlation of coefficients, a total correlational matrix and a sequence of observation of several classroom situations.

**Major Findings** :-

1. Intelligence and academic achievement were possibly related; the poorer the mental ability, the poorer was the scholastic achievement.
  2. Poor mental ability was not the only cause of scholastic backwardness, personality characteristics such as extraversion, introversion, home and school factors like attitude towards the school, towards teachers, towards different subjects of study, economic and educational achievement of the students.
  3. Absence of frequent assessment of classwork was found to be another important reason that led very often to neglect and delayed action or no action at all.
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**15. (CE 16) :-** For details see p. 22 of this report.

**Title of the Thesis** :- A treatise on the education of backward classes in India since independence with special reference to West Bengal.

**Reference** :-5<sup>th</sup> Survey, Volume II, p. 1623



### **Objectives :-**

1. To identify the criterion for defining the backward classes in India in the historical perspective, pin-pointing the constitutional provisions and judicial reviews in the matter.
2. To find out the growth and development of elementary education among the backward classes.
3. To identify the nature and form of hurdles and constraints causing absenteeism, wastage and stagnation in the elementary stage of education among the backward classes.
4. To assess the role and importance of education for developing the backward classes as human resources.
5. To find out the impact of education on the backward classes as regards social and national integration.
6. To understand and assess the attitudes, aspirations and motivations of parents belonging to the backward classes towards the education of their children.

### **Methodology :-**

The study was conducted with a sample of 1360 backward class households drawn from 48 villages of West Bengal with the help of constitutional articles related to the backward classes, judicial case studies and analysis of governmental and non-governmental documents and reports for identifying the criterion of backwardness. The study contains description of data; percentages were calculated for making comparisons.

### **Major Findings :-**

1. The universalisation of elementary education among the backward classes was yet to be attained. Out of the pupils, the rate of enrolment of boys was still greater than that of girls.
2. There had also been differences in reasons for poor enrolment in different schools located in different environmental situations. Absenteeism, wastage and stagnation in elementary education were greater, in some micro-cases, among girls than among boys. The enrolment rate was better in 'roadside' and 'station-side' villages.
3. Expenditure on the education of backward classes led to human resources and capital.
4. Education of the backward classes had a positive effect on the development of social and national integration against disruptive forces, caste-based communalism and religious fundamentalism.
5. The majority of the parents of the backward classes living in different environmental locations had a positive attitude towards the education of their children, but they could hardly act as per their attitudes.
6. Parents' aspiration and motivation for the education of their children were related to the level of their age and education, and educated parents of lower age had better aspirations and motivations than illiterate and aged parents.

**1. (CP 01) :-** For details see p. 23 of this report.

**Title of the Thesis :-** A study of teacher traits associated with classroom interaction patterns.

**Reference :-** 3<sup>rd</sup> Survey, p. 774

**Objectives :-**

1. To enquire into the relationship between a set of teacher traits and a set of behaviour patterns in the classroom as measured by Flanders Interaction Analysis category system (FIACS).
2. To explore the possibilities of predicting teacher behaviour from teacher traits, and if feasible, to deduce a concrete procedure for such a prediction.

**Methodology :-**

**Sample -** 200 school teachers of West Bengal.

**Tools -** The FIACS, Teacher Personality Inventory, Chatterjee's Non-language Preference Schedule, Catell's Culture Fair Intelligence Scale 3 (Forms A and B) and Scale of Attitude towards Teaching as a Career were the tools used for data collection.

**Major Findings :-**

1. Significant correlation existed between Teacher Response Ratio (TRR) and self-confidence, leadership, emotional balance and sociability, attitude towards teaching as a career, intelligence and interest in fine arts and literature.
2. Significant correlation existed between Teacher Questioning Ratio (TQR) and self-confidence, leadership, emotional balance, sociability, intelligence and interest in literature, science and sports.
3. Significant correlation existed between Pupil Initiation Ratio (PIR) and self-confidence, leadership, emotional balance and sociability, intelligence and interest in literature and sports.
4. Significant correlation existed between Teacher Response Ratio (TRR) and self-confidence, emotional balance, sociability, attitude towards teaching as a career, intelligence and interest in literature.
5. Significant correlation existed between Teacher Questioning Ratio (TQR) and self-confidence, leadership, emotional balance, honesty and integrity, intelligence and interest in literature, science and sports.
6. Significant correlation existed between CCR and self-confidence, leadership, emotional balance, sociability, attitude towards teaching as a career, intelligence

and interest in literature, science and sports.

7. Significant correlation existed between SSR and sociability, and attitude towards teaching as a career.

8. Significant correlation existed between PSSR and self-confidence, leadership, emotional balance, intelligence and interest in literature.

9. The highest significant correlation obtained was 0.539 between TQR and sociability and the lowest significant correlation was 0.198 between TQR and interest in fine arts.

10. The values of the multiple R obtained for each of the 8 dependent variables with all the 11 independent variables taken together were mostly significant at 0.01 level of confidence except in the case of SSR and PSSR.

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**2. (CP 02) :-** For details see p. 23 of this report.

**Title of the Thesis** :- Contribution of some home factors on children's scholastic achievement

**Reference** :- 4<sup>th</sup> Survey, Volume I, p. 849

**Objectives** :-

1. To find the differences between high achievers and low achievers with respect to home factors like educational environment, income, spatial environment, social background, provision of facilities, parent-child relationship, home-making role, punitive control and intelligence.

2. To obtain the multiple correlation and multiple regression equation between academic achievement (criterion variable) and home factors (predictor variables).

**Methodology** :-

**Sample** – 192 students of class II to class VII, age group 7 to 12 years of 8 selected schools in Calcutta and their mothers interviewed at home. 96 students were high achievers and 96 students were low achievers. The stratified random sampling design was used as the sampling frame.

**Tools** – Catell's Culture Fair Intelligence Scale, Schaefer and Bell's Parental Attitude Research Instrument (Bengali version), an interview schedule to collect information on home environment and examination marks.

**Analysis** – A contrast group design was used, and t-test, product-moment correlation and multiple regression analysis were the statistical techniques.

**Major Findings** :-

1. The home variables such as educational environment, income, spatial environment, social background, provision of facilities, and parent-child relationship showed a significant difference between the high achievers and low achievers at 0.01 level.



2. The child-rearing attitude of the mothers of the two groups showed a significant difference between the mothers of the high achievers and the low achievers at 0.01 level, indicating thereby that the mothers of the two groups possessed different attitudes regarding child-rearing practices.

3. The multiple correlation coefficient was 0.546.

4. The multiple regression equation revealed that the contribution of parent-child relationship to academic achievement was about 17%, of social background about 7% and of educational environment about 4%. The remaining five factors – income, spatial environment, rejection of home-making role, harsh punitive control and intelligence, explained about 2% of the variance of the criterion scores.

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**3. (CP 03) :-** For details see p. 23 of this report.

**Title of the Thesis :-** Environmental influence, academic achievement and scientific aptitude as determinants of adolescent's attitude towards Science stream.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 722

**Objectives :-**

1. To assess adolescent students' attitude toward science.
2. To find out the environmental and academic factors that influenced their attitude towards science.

The dependent variable was attitude towards science, and 3 categories of independent variables were environmental influence measured by parental education, income and socio-economic status, influence of teachers and peers, and vocational value of science; achievements in language, physical science, life science and social study; and scientific aptitude measured by numerical ability, mechanical reasoning and space relations.

**Hypothesis :-**

There is no significant difference between the pupils having a highly positive attitude towards science and those having a highly negative attitude toward science with respect to any of the independent variables stated above either in isolation or in interaction.

**Methodology :-**

**Sample** – 420 adolescent students, 221 boys and 199 girls from 21 schools of Calcutta (stratified random technique).

**Tools** – 1. Researcher-made Information Schedule to know the respondents' generalities, leisure activities, family background, relations with parents, peers and teachers and social influences; and sub-tests of DAT battery on numerical ability, mechanical reasoning and space relation.

2. Achievements in school subjects were obtained from the annual examination records for the last 3 years.
3. Science Attitude Scale of Avinash Grewal (published).

**Analysis** – Data represented by charts and tables and analysed by t-test, ANOVA and chi-square test.

### **Major Findings :-**

1. Pupils having a high positive attitude towards science and a negative attitude towards science were different with respect to the independent variables either in isolation or in interaction.
  2. The obtained casual factors were environmental, attitudinal and achievement related. Parent education and SES led to favourable attitude towards science. Teachers' influence, peers' influence, vocational value of science and future aim of life were other contributory factors. The pupils who had a favourable attitude to science possessed higher ability in mechanical comprehension and visualization of objects in space. They were higher achievers in physical and life sciences.
  3. There existed significant interactions between
    - a) source of inspiration and achievement in physical science,
    - b) source, achievement in physical science and space relations,
    - c) source, achievement in life science and space relations.
- 

**4. (CP 04) :-** For details see p. 23 of this report.

**Title of the Thesis :-** Frustration reactions of school children associated with some psychological variables.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 972

### **Objectives :-**

1. To study the relationship of aggressive reactions to frustrating interpersonal situations with a number of psychological variables.
2. To find out the extent of dependence of each of the frustration reactions on psychological variables.
3. To predict the frustration-reaction pattern from psychological variables.

### **Methodology :-**

**Sample-** 100 boys and girls in the age group 9-13 years, selected from 23 schools from 23 schools in and around Calcutta. These subjects belonged to 4 categories on a socio-economic status scale varying from low to high. Stratified random sampling was used in the study.

**Tools** – Rosenzweig P-F study Child Form) adapted in India by Pareek, which was further adapted in Bengali for assessing frustration reactions; Kuppaswamy's Socio-economic Status Scale; Junior Eysenck Personality Inventory adapted by Kundu; Standard Progressive Matrices by Raven; and examination result for assessing achievement.

**Analysis** - The data were analysed using means, SDs, ANOVA, multiple regression analysis and multiple correlation.

### **Major Findings :-**

1. Developmental changes in aggression were discernible.
2. Sex had little impact on frustration reactions.
3. Socio-economic status, achievement, neuroticism and intelligence were correlated significantly with various reaction patterns. However, the nature of correlations differed.
4. The frustration variables could be predicted from the psych-social variables.
5. All the psycho-social variables, except extraversion, could be predicted from the frustration reactions.

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## **APPLIED PSYCHOLOGY**

1. **(C Ap 01) :-** For details see p. 24 of this report.

**Title of the Thesis :-** A probe into the personality of adolescent Bengali girls of Calcutta city for developing an idea of their life problems at High School leaving age

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 140

### **Objectives :-**

1. To study the normative trends of the population - problems and difficulties and adjustment patterns in major spheres of life.
2. To find out specific characteristics of personality expressions of 8 scholastic groups, evident in the population.
3. To diagnose the needs of girls in the 8 groups and the barriers generating conflicts and tensions, and other important facts that would provide a helpful frame of reference for parents, teachers and counselors to understand adolescent girls and to tackle them effectively in different social learning situations.

### **Subfields -**

1. Background of family and other development factors.
2. Perceptions and expectations of present and future life.
3. Nature of interpersonal relations with family members and peers.

### **Enquiry Areas -**

1. Knowledge about assets and limitations of self, home, studenthood, personal convictions regarding womanhood and peer life.



2. Existing practices of self, in the family traditions, with the family members and expressed through family outlook.

3. Self-evaluation regarding psycho-physical constitution, family relations, social skills, societal frame of reference, viz. systems and controls.

### **Methodology :-**

**Sample** – 1200 adolescent girls of class X from 40 Bengali medium schools of Calcutta city.

Total sample was classified into 8 scholastic groups, on the basis of their percentage of marks in the last examination, the topmost group in the range of 72-77% and the lowest group in 30-35%.

The design was a stratified sample survey.

**Tools** – Self-prepared inventory in Bengali intended to explore adolescent girls' mental dispositions, knowledge items, practice items and attitude items concerning sociability, family relations, psycho-physical constitution and personal-societal relations.

**Analysis** – Pearson's r, chi-square, graphs and charts.

### **Major Findings :-**

1. There were indications of

a) low awareness about the importance of curriculum subjects and their respective contributions in the preparation for future life;

b) a hidden eagerness for heterosexual friendship;

c) a general trend of cognitive desynthesis in the areas of future womanhood;

d) a general trend of being qualified as a compliant-dependent group, as an authority-compliance type, and an anaclitic moral development trend.

2. With an undercurrent of conflict they were found clinging to the traditional values and ideologies of the community – more importance being attached to ideal wifehood than to any other kind of womanhood.

3. About one-tenths of the respondents expressed a dire need for a counseling service to minimize their anxiety and tension in relation to several aspects of their anticipated personal relationships and the consequences in their future life.

4. The respondents disclosed stratum-wise multi-model characters over some enquiry areas to indicate specialities.

5. The adolescent girls maintained several healthy personality modes but at the same time expressed the rudiments of several other undesirable ones.

6. The researcher developed a theoretical model of personality as individual 'as-is' and 'as-perceived'.

2. (C Ap 02) :- For details see p. 24 of this report.

**Title of the Thesis** :- Socially disadvantaged and advantaged children: a psychological study of their relative academic achievements.

**Reference** :- 3<sup>rd</sup> Survey, p. 227

**Objectives** :-

1. To enquire into the relative academic achievements of the socially advantaged and disadvantaged children.
2. To find out the socio-psychological factors associated with their relative academic achievements.

**Methodology** :-

1. 2 lists of schools were obtained from the district authorities of Calcutta and 24 Parganas.
2. Based upon the opinion of teachers, lists of A type (attended mostly by the boys of high- and middle- income groups) and B type (attended mostly by boys of low income group) schools were prepared.

**Sample** -Random selection of A type and B type schools both from the urban and rural settings was done. From the urban areas, 2 A type and 3 B type schools; and from the rural area, 1 A type, 1 B type and 2 mixed types of schools were considered.

Lists of students (boys) in class IV within the age of 8-10 years were prepared. The students who could fulfill all the criteria of advantaged and disadvantaged children were considered.

The final sample included 200 students, 100 advantaged (50 belonging to the urban and 50 to the rural setting) and 100 disadvantaged (50 belonging to the urban and 50 to the rural setting).

**Tools**- Interview schedules for children fathers of the children and teachers; Raven's Coloured Progressive Matrices; Self-concept Inventory for children and their fathers; Indian adapted version of Bellak's Children Apperception Test were used.

The terminal and annual examination marks obtained by the students in their previous class were also collected.

**Analysis** - Chi-square test, t-test, coefficients of contingency correlation, coefficient of multiple correlation, coefficient of partial correlation and multiple regression equation were computed.

**Major Findings** :-

1. The advantaged children were always superior to the disadvantaged children in respect of academic achievement.

2. The advantaged children and disadvantaged children did not differ in respect of academic achievement.
  3. In the advantaged group, both the children and their fathers had positive self-concept, whereas in the disadvantaged group, both the fathers and their children reported negative self-concept.
  4. The child-centredness of the parents was more marked in the case of advantaged children than in the case of disadvantaged children.
  5. The academic achievements of the advantaged and disadvantaged children, both as a whole and separately, had significant association with some of the biographic and environmental factors.
  6. Cognitive and perceptual factors, on the whole, made significant contribution to the academic achievement of the children considered irrespective of their urban and rural settings. This was so also in the case of the advantaged children considered irrespective of their settings and also when urban and rural populations were considered separately.
  7. The academic achievement of the children considered irrespective of their advantaged and disadvantaged status and irrespective of urban and rural settings was found to have significant association with intelligence, self-concept of father, child-centredness of parents and father's education, occupation and income.
  8. Father's education contributed maximum to the relative academic achievements of the children followed by the intelligence of the children.
  9. The disadvantaged and advantaged children differed in terms of their personality characteristics to a considerable extent. The two groups differed in respect of their biographic and environmental factors. Almost the same differences were observed when the advantaged and disadvantaged children were compared in terms of urban and rural settings, separately.
  10. There was no difference between the urban and rural advantaged children in respect of biographic and environmental factors except the provision for a private tutor. But the urban and rural disadvantaged children were found differing in terms of biographic and environmental factors.
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**3. (C Ap 03) :-** For details see p. 24 of this report.

**Title of the Thesis :-** Study of parent perception and perception of school of adaptive and maladaptive children.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 394

**Objective :-**

To find out how nursery school children perceived and interpreted their parents as well as home environment and their school situation in course of their social, developmental phases.



## **Hypotheses :-**

1. Adaptive children have richer perceptions and interpretations about their parents whereas the maladaptives have poor perceptions and interpretations for the same.
2. Adaptive children have richer perceptions and interpretations about school whereas the maladaptives have poor perceptions and interpretations for the same.
3. Parent-perception and school-perception of both the adaptive and maladaptive children are directly proportional.

## **Methodology :-**

**Sample-** 400 children, 4 and 5 years old of 17 Bengali medium nursery schools in Kolkata. There were 200 (110 boys and 90 girls) adaptive and 200 (110 boys and 90 girls) maladaptive children.

**Tools-** Researcher made schedules; home information schedule and School Adaptation Test (SAT)- reliability and validity coefficients being 0.66 and 0.56 respectively; Parent Perception Test (reliability and validity coefficients being 0.59 and 0.74) and the School Perception Test.

**Analysis -** Product moment correlation, t-test and F-test. Contrast group design was used.

## **Major Findings :-**

1. The maladaptive children perceived poorly or were unable to perceive all the contents of the school situation with similar levels of parent-perceptions at home, whereas the adaptives perceived richly or were able to perceive mostly all the contents of the school situation and of the nature of parent-perceptions.
  2. Home-perceptions and school-perceptions of children were directly proportional, i.e. one who perceived parents more richly, perceived school at a similar level.
  3. Age and sex had no role to play in the perceptual process.
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**4. (C Ap 04) :-** For details see p. 24 of this report.

**Title of the Thesis :-** Social, psychological determinants of the migratory rural students and their adjustment problems.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 148

## **Objective :-**

To find out the factors responsible for migration of rural students to urban institutions inspite of the availability of an educational facility in their own rural set up.

### **Hypotheses :-**

1. The socio-economic and family background of those students who have come to urban institutions for continuing their class XI and XII course (which they could do in their local, rural schools) are not different from those of non-migrated rural students, but are different from urban matched groups.
2. Their choice of urbanity/rurality is different from those of the non-migrated rural group.
3. Their social values are different.
4. Their alienation factor is different from that of the non-migrated rural group.
5. Their stress factor is different from that of the non-migrated rural group.
6. Their adjustment with the urban group is doubtful.

### **Methodology :-**

**Sample** – 300 male students studying in Calcutta colleges who had migrated from rural schools, 300 male students studying in rural higher secondary schools, and 300 male students studying in Calcutta schools, having permanent residence and passing Madhyamik (class X) examination from Calcutta schools. The total sample thus consisted 900 students of classes XI and XII.

**Tools** – Family Background Information Schedule, Rurality-Urbanity Choice Questionnaire, Rokeach Social Value Survey, Dean's Alienation Scale, Gangopadhyay's Stress Determinial Scale (reliability = 0.76 and validity = 0.82), and Rural-Urban Students' Adjustment Inventory.

**Analysis** – Experimental-control group design was used to test the propositions. Chi-square test and t-test were used for analysis.

### **Major Findings :-**

1. The students who had gone to urban institutions for continuing their class XI and XII course (which they could complete in their local schools) did not vary in respect of their family background from those of non-migrated rural students but varied from their urban counterparts.
  2. Their choice of urbanity/rurality varied from those of their non-migrated counterparts.
  3. Their social values varied from those of their non-migrated counterparts.
  4. Their alienation factor varied from those of their non-migrated counterparts.
  5. Their stress factor differed from that of the non-migrated group.
  6. Their adjustment with their urban peers showed incompatibility.
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**5. (C Ap 05) :-** For details see p. 24 of this report.

**Title of the Thesis :-** An influence on the Mathematical model of life adjustment attitude, dispositions of Bengalee students (of Calcutta) of school leaving class.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 348

**Objectives :-**

1. To try and verify the utility of using a more sophisticated procedure of attitude-scale construction.
2. To select any method by which an investigator could venture into framing a mathematical model on the basis of empirical findings in the field of attitude measurements.
3. To describe the inter-relationships of items in an attitude questionnaire.
4. On the basis of the model, to make some inferences about hypothetical variables underlying attitude formation.

**Methodology :-**

**Sample** – 270 students of school-leaving class, consisting of boys and girls in equal proportion from 10 randomly selected secondary schools.

**Tools** – 1. 4 attitude inventories were selected:

Minnesota Personality Scale, Minnesota Counselling Inventory, Calcutta social morale Inventory and Life-environment Adjustment Inventory.

2. 150 valid items were selected and included: the nature of physical health, the nature of temperamental peculiarities, the relation with parents, perception about family environment, sociable nature, preference in social life situation, perceptions about educational policy and practices, perceptions about law enforcement and judicial policies, and perceptions about economic conditions and policy.

3. 135 attitude statements written in simple English were finally set up.

4. Multiple groups solution after Harman was used to extract factor groups from the correlation matrix of 135 attitude statements. The factors obtained were health, family relation, social relation and societal relations.

5. The inventory with a 'Yes/No' scale was administered to a representative population of students (N=520), well-matched with a Factor Analysis sample.

**Analysis** – The responses of 520 students were treated by the Latent Structure Analysis method to obtain a 39-item shortened equivalent inventory, inclusive of the 4 obtained factors.

**Major Findings :-**

1. A scientific tool with a smaller number of highly valid attitude items could be



constructed by the Latent Structure Analysis method in lieu of the Factor Analysis method.

2. It was established that the short attitude inventory could be used to explore the attitude of a student population with scientific parsimony as a dependable substitute for the original lengthy one.

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**6. (C Ap 06) :-** For details see p. 25 of this report.

**Title of the Thesis :-** An investigation into the personality make-up, intelligence and study habit of low and high achievers.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1915

**Objective :-**

To explore the extent of relationship of study habit pattern, intelligence and several personality factors with the scholastic achievement at the secondary stage of education.

**Methodology :-**

**Sample** – 186 high achievers and 227 low achievers including both boys and girls, classified on their Madhyamik Pariksha conducted by WBBSE. They were selected from higher secondary schools/colleges of Calcutta and its suburbs. High achievers were those who had scored more than 60% and low achievers those who had scored between 35% and 44.9%.

**Tools** – NIIP Group Test 70/23, Cattell's 16 PF Questionnaire Form C (Bengali adaptation) and a questionnaire developed by the investigator.

**Analysis** – ANOVA and correlation.

**Major Findings :-**

1. There was overall significant difference between the two achievement groups in study habit.
  2. The two study groups differed significantly on intelligence.
  3. Between the two achievement groups there were differences in the personality factors. Significant differences were found in 12 out of 16 factors (except C, E, G and H).
  4. Study habit-achievement and intelligence-achievement were positively correlated.
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## **ANTHROPOLOGY**

1. (C An 01) :- For details see p. 25 of this report.

**Title of the Thesis** :- Primary Education in Calcutta – an anthropological appraisal.

**Reference** :- 4<sup>th</sup> Survey, Volume II, p. 1270.

**Objective** :- To survey anthropologically the condition of primary education in the area of Greater Calcutta, viz. the city of Calcutta and its adjoining areas. The specific issues examined were mainly:

- 1) School categories,
- 2) Teachers and their conditions and social and economic milieu,
- 3) Syllabus and its coverage
- 4) Students and their background
- 5) Major hindrances and their remedies.

**Methodology** :-

**Sample** – Consisted of 109 schools. Data were collected using survey schedules. Data comprised historical records, all allied information pertaining to the problem and the verbal and written reports of respondents.

**Tools** – Interviews with an open questionnaire.

The individual – student, teacher and guardian – was observed both as an individual and as a member of group and community, and also in different contexts.

**Analysis** – Data were presented in tables, charts and graphs and then analysed and interpreted.

**Major Findings** :-

1. There were 3 major types of schools, viz. government, quasi-government and non-government.
2. In all the three categories there were large differences in structure and function.
3. The most prevalent medium was Bengali (83%), followed by Hindi (6%), English (6%) and Urdu (1%).
4. Most of the schools were non-residential.
5. Vacation days ranged between 45-70 per year.
6. School buildings were mostly under ownership but a few were rented.
7. The teachers were mostly in the age group 21-50 years.
8. The percentage of female teachers was 62,32 and 16 in city, metropolitan and rural areas respectively.
9. Educational qualifications of the teachers were low; the majority were matriculates, few were graduates and some were below matriculation, specially in rural areas.

10. Teachers had experience of between 5 and 15 years.
11. For the majority of teachers, the pay range was Rs. 300-500 per month.
12. Teachers were mostly married and living in small families in houses rented or owned.
13. The average distance between residence and school was about 5 km.
14. The syllabus was generally the same in all categories of schools, but most did not take care of physical education, sports, creative work and performing arts.
15. In rural areas students of higher ages were found in all the classes from I to V.
16. The ratio between the students and teachers had great variation in different areas ranging from 150:3 to 225:8.
17. Self-instruction at home was a rare phenomenon, and homework and lesson preparation were done under the guidance of a family member, parent or sibling, or private tutor.
18. Students belonged to all castes; but in Calcutta Brahmins, Vaidyas and Kayasthas were in higher proportion.
19. The location of a school was not planned with respect to students' residence and congeniality of surroundings.
20. Most schools lacked space.
21. The magnitude and depth of the problems were not fully known and everybody (government, guardians, teachers' organizations) was afraid to face them.

**2. (C An 02) :-** For details see p. 25 of this report.

**Title of the Thesis :-** Education among the backward classes in Howrah district, West Bengal.

**Reference :-** 4<sup>th</sup> Survey, Volume II, p. 1441

### **Objectives :-**

1. To find out why an appreciable change did not come about in the level of education of backward classes in a period of more than a quarter of a century in spite of the inclusion of this fundamental task in education policy.
2. To highlight the picture of education among the backward classes in Howrah district in West Bengal.

### **Methodology :-**

1. A great part of the work was carried out through a field survey in the villages and schools. A multidisciplinary approach was followed.
2. The model of survey was formulated on the basis of anthropological methodologies with special emphasis on the relationship between man and education.
3. Data were collected from three major areas, viz. education directorate, schools and villages.



### **Major Findings :-**

1. The condition of education and literacy was extremely poor in the case of tribes while in the case of scheduled castes, it was slightly better. Neither the scheduled tribes nor the scheduled castes could compare to any extent with higher caste groups, irrespective of rural and urban situations.
2. No appreciable development was made in this sector despite the constitutional commitment.
3. Dropout turned out to be a vital problem which showed unproductive expenditure and loss of energy by different agencies.
4. There were a number of drawbacks or limitations which were primarily faced by the students, their parents and the teachers. These included the poor economic condition of the backward classes.
5. Due to lack of education and literacy the backward classes did not have any awareness about literacy.
6. Literacy programmes among the backward classes met with barriers due to the oppression from higher groups who were relatively more literate and better educated. This was mainly due to their economic dominance.
7. In many cases, policy matters both from government and other agencies had been properly examined and it was found that policy formulations were far removed from reality.
8. Besides these, there was a vast communication gap between illiterate classes and the agencies which involved themselves in literacy campaigns.

**1. (KE 01) :-** For details see p. 26 of this report.

**Title of the Thesis :-** A study in the appreciation of prose and poetry of secondary school children.

**Reference :-** 3<sup>rd</sup> Survey, p. 582

**Objectives :-** To know-

1. how far and how the students at the last stage of secondary schools attained the ability of literary appreciation.
2. whether there was any significant difference in the appreciation of literature between rural and urban pupils.
3. whether there was any environmental effect in the appreciation of literature among pupils of the same sex and of different sexes.
4. the nature of thinking involved in attaining literary appreciation by the pupils.

**Methodology :-**

**Sample** – 500 school-going adolescents (both boys and girls) forming two groups (rural and urban) equated with respect to intelligence.

**Tools** – 1. The Bengali literature prescribed for the school final students was chosen as the subject matter.

2. A multiple choice type objective test of appreciation and an open-ended questionnaire, developed by the author, were used for the collection of data.

3. Two approaches commonly used in the study of literary appreciation, viz. the subjective approach and the objective approach, were recognised of which the objective approach was used in the study. Literary appreciation was designed as the recognition of attributes of a good piece of literature.

**Major Findings :-**

1. The norm of literary appreciation of pupils was quite satisfactory.
2. The environment (rural-urban) had a very strong influence on the attainment of literary appreciation.
3. Sex did not influence literary appreciation.
4. There was no significant interaction between sex and environment with respect to literary appreciation.
5. The urban students were distinctly superior to the rural students with respect

to the quality of language used, sentence frames, choice of words, etc. There was qualitative difference between boys and girls of rural and urban schools in the patterns of thinking and in discriminating items of appreciation.

6. The criteria, both in poetry and prose, could not be classified individually in terms of a hierarchy; they could only be classified into some groups because they formed clusters. Again, the tool that was prepared for evaluating appreciation outcomes had been a valuable means for fostering literary appreciation in a teaching-learning situation.

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**2. (KE 02) :-** For details see p. 26 of this report.

**Title of the Thesis :-** Effectiveness of multimedia programmed materials in the teaching of Physics.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 774

**Objectives :-**

1. To develop instructional materials for the strategy of programmed class-teaching and to study its effectiveness.
2. To develop the programmed learning material on 'Light' in school physics in 4 different styles – semi-programme, linear programme, branching programme and hybrid programme.
3. To develop a multimedia programme package using each style of programme in conjunction with audio-visual media.
4. To compare the relative effectiveness of different strategies of instruction employing multimedia programmed material and programmed class teaching on the criteria of immediate achievement, retention and delayed retention.
5. To study the interaction effects of instructional strategies, abilities and occasions (immediate learning, retention and delayed retention).

**Methodology :-**

**Sample –** 400 learners of standard IX, equal number of boys and girls.

**Tools –** Group Test of Intelligence, BEPRT in Bengali, the Entry Level Tests, and criterion referenced tests I, II and III.

1. 5 treatment groups were **T-1** having programmed lessons, teacher's resource book and guide, students' study guide for classroom demonstration; **T-2** having a semi-programmed text, tape-slide work-book, tape-transparency, auto-elucidation test, tape-filmstrip, tape-film, physics-kit, manual for performing experiments; **T-3** with

a linear programmed text, others same; **T-4** having a branching programmed text, others same; **T-5** having a hybrid programmed text, others same.



2. Some concepts and principles were first developed in the subjects through the respective programmed texts, which were then concretized and strengthened through the tape- slide workbook or tape-transparency or tape-film presentation.
3. Evaluation was done on a short auto-elucidation test. Feedback was then provided by involving the subjects in experimental work with the help of Physics Kit and manual.

**Analysis-** Analysis of covariance;  $5 \times 3 \times 3$  factorial experiment with nesting and crossing.

### **Major findings :-**

1. There was a significant difference among the different strategy means on the criterion of overall achievement. It was found that on the criterion of overall achievement the multimedia semi-programmed instruction was better than the strategy of programmed teaching; the multimedia linear programmed instruction was better than the multimedia semi-programmed instruction; the multimedia branching programmed instruction was better than the multimedia linear programmed instruction; and the multimedia hybrid-programmed instruction; was better the multimedia branching programmed instruction.
2. The strategies of multimedia programmed instruction enabled learners to reach the level of mastery learning (mean score varied between 80.00 and 86.00 out of 100).
3. It was found that a significant difference existed in the achievement through the different strategies due to differences in ability.

**3. (KE 03) :-** For details see p. 26 of this report.

**Title of the Thesis :-** Scholastic backwardness in the basic processes in Arithmetic-  
diagnosis and prevention

**Reference :-** 3<sup>rd</sup> Survey, p. 535

### **Objectives :-**

1. To diagnose children's disabilities in specific areas of addition and subtraction in arithmetic with the help of specially developed diagnostic tools.
2. To suggest preventive measures for removing the expected learning disabilities in those areas.

### **Methodology :-**

**Sample –** The sample for diagnosis of scholastic backwardness consisted of 200 students of class II of 6 primary schools selected from culturally, socially and economically disadvantaged areas, while the experiment was conducted on students of class I from 4 primary schools situated in similar disadvantaged areas.

**Tools** – 1. The diagnostic tools developed in addition covered 9 major objectives, 34 specific objectives and consisted of 100 test items while those in subtraction consisted of 4 major objectives, 16 specific objectives and consisted of 100 test items. The test-retest reliability coefficients for tools in addition and subtraction were 0.98 and 0.94, respectively.

2. An individual structured interview was conducted with 20% students selected at random from the sample to validate the tools. The validity coefficients were found to be 0.99 for both the tools.

3. For suggesting preventive measures 20 clusters of disabilities in addition and 16 in subtraction were identified as the basis for the experimental study. 9 teaching units were specially developed on the basis of qualitative and quantitative analysis of learning disabilities already diagnosed.

4. The experimental groups were treated by Piagetian methods of instruction of the child's conception of numbers; the controlled groups were taught conventionally. 9 independent variables were controlled either by physical or selective manipulation.

5. Kamat's Intelligence Test was used as pre-test for covariance design. The diagnostic tools developed were used as post-tests.

**Analysis** – Conclusions were drawn from covariance analysis.

### **Major Findings :-**

1. The experimental groups taught by the Piagetian methods achieved more than the controlled groups taught conventionally.

2. The experimental groups showed significantly better achievement than the controlled groups when both the groups were evaluated on the post-test 15 days after the experiment.

3. The experimental groups showed greater motivation in learning.

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4. **(KE 04)** :- For details see p. 26 of this report.

**Title of the Thesis** :- A study of the determinants of reading abilities of the students in Bengali.

**Reference** :- 4<sup>th</sup> Survey, Volume I, p. 847

### **Objectives :-**

1. To develop norms of vocabulary for class V students.

2. To develop norms of comprehension for class V students.

3. To measure the extent of word recognition of the students of both sexes in different schools situated in different areas

4. To measure the extent of reading comprehension of both sexes in different schools situated in different areas.

5. To study the significance of the differences, if there were any, in the scores obtained the students of Class V in the vocabulary developed.
6. To study the significance of the differences, if there were any, in the scores obtained the students of Class V in the reading comprehension developed.
7. To find out intercorelations among reading comprehension, vocabulary, education of the parents, occupation of the parents, and income of the parents.
8. To deduce a multiple regression equation of reading comprehension as the dependent variable in vocabulary, education of the parents, occupation of the parents, and income of the parents, as independent variables.

11 hypotheses were examined.

### **Methodology :-**

1. A descriptive study was undertaken. A vocabulary Test and Reading Comprehension Test for Class V were developed.
2. The Vocabulary Test was administered on 275 boys and girls (just promoted to Class VI). The Reading Comprehension Test was administered on 225 boys and girls.
3. Two test norms were developed. SES Scale (rural and urban) was also used.

**Analysis-** Distribution of scores in each test was represented graphically for different comparative studies. ANOVA, Mann-Whitney U-tests, correlation etc. were used. Two regression equations (one for the urban group and another for rural group) were developed.

### **Major Findings :-**

1. Boys showed more proficiency in reading comprehension in Bengali than girls.
2. Urban and semi-urban students showed better performance in reading comprehension in Bengali than semi-urban and rural students, respectively.
3. Urban girls possessed higher reading comprehension in Bengali than semi-urban girls.
4. Urban boys had more reading comprehension than semi-urban boys as well as urban girls.
5. Semi-urban boys possessed more reading comprehension than semi-urban girls.
6. Scores in reading comprehension of the students could be predicted from the vocabulary scores and SES scores of their parents.
7. Profession of the parents did not contribute positively to the prediction of reading comprehension.
8. Scores in reading comprehension of urban and rural students could be predicted from two separate multiple regression equations.



**5. (KE 05) :-** For details see p. 26 of this report.

**Title of the Thesis :-** The needs, frustration, frustration intolerance and mental health of adolescent girls reading in certain urban secondary schools in West Bengal.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 348

**Objectives :-**

1. To study the extent of the possession of some needs by secondary school girls.
2. To study the extent of frustration felt by them in regard to the needs under study.
3. To study the extent of frustration-intolerance possessed by them in regards to the need.
4. To study the pattern of growth of the needs along with frustration and possession of frustration in regard to them during adolescent years (13-16 years).
5. To find out whether there was any significant relationship between socio-economic level and the needs, their frustration and frustration-intolerance in regard to them.
6. To study the extent of mental ill-health existing among the girls for inquiring about the relationship existing between mental health and the extent of possession of needs (under study), their frustration and frustration-intolerance in regard to them.
7. To find out the relationship between social intelligence and the needs, their frustration and frustration-intolerance in regard to them.
8. To develop tests for needs, frustration and frustration-intolerance.

**Methodology :-**

**Sample –** 5 schools of 3 urban areas of Nadia and 24 Parganas were selected and 804 (class VIII, IX and X) girls were drawn.

**Tools –** Adolescent Girls' Needs, Frustration and Frustration-intolerance Questionnaire; Adolescent Girls' Needs, Frustration and Frustration-intolerance Picture Projection Test; Sen's Neurotic Test (F-test); Roy's Social Intelligence Test; Kuppuswamy's SES Scale.

**Major Findings :-**

1. Materialistic, sexual relationship, security and independence needs were high. Not only this, but the extent of frustration in regard to these needs was also high.
2. Extent of frustration-intolerance of these 5 needs was high.
3. Idealistic and altruistic needs were low.
4. Incidence of mental ill-health was high.
5. There was high positive relationship between materialistic, sexual relationship,

security and independence needs and mental ill-health.

6. There was a high positive correlation between frustration-intoleration and mental ill-health.

7. There was a negative correlation between idealistic and altruistic needs and mental ill-health.

8. The less the frustration of idealistic and altruistic needs, more the mental ill-health and vice versa.

9. There was a negative relationship between mental ill-health and frustration-intoleration of the idealistic and altruistic need.

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**6. (KE 06) :-** For details see p. 26 of this report.

**Title of the Thesis :-** A technological approach to preventive teaching for alleviation of learning disabilities in Life Science.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 349

**Objective :-**

To try out a technological method of preventive teaching for the alleviation of learning disabilities of the students in Life science.

**Hypotheses :-**

1. The experimental groups taught by audio-visual materials and techniques would achieve significantly more than the controlled groups taught by the conventional method.

2. Learning through audio-visual materials and techniques would cause more prolonged retention than that by the conventional method.

3. The experimental groups would show more interest in the lesson than the controlled groups.

**Methodology :-**

**Sample-** Class X students of four schools with experimental and controlled groups in each school. The two groups were treated with separate methods of teaching.

**Tools-** 1. A diagnostic test for the unit 'cell division' was developed. The sample included 300 students selected from 12 schools in West Bengal. The brightest students were kept outside the survey.

2. A Students Performance Chart was prepared. Patterns of disabilities were identified through a diagnostic test.

**Analysis-** The covariance was analysed.

## **Major Findings :-**

1. All the three hypotheses were retained.
  2. 80 major patterns of disabilities in the content area were identified.
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**7. (KE 07) :-** For details see p. 26 of this report.

**Title of the Thesis :-** A study of the achievement of the students in chemistry and finding relationship with some of its determinants.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 729

## **Objectives :-**

1. To appraise the achievement of the students in physical science.
2. To appraise the extent of academic motivation, intelligence and socio-economic status of the students.
3. To find out sex-wise and strata-wise differences, if any, in the achievement in physical science.
4. To determine relationships among the scores of the Achievement Test in physical science, the Intelligence Test, the Academic Motivation Test and the Socio-economic Status Scale.
5. To develop regression equation of the achievement in science on intelligence, academic motivation, and socio-economic status.

## **Methodology :-**

**Sample -** An achievement test in chemistry was standardized on 450 boys and girls (just promoted to class X) reading in 9 schools in West Bengal.

**Tools -** Test-retest reliability, content, predictive and concurrent validity and T-score norms were developed. Bhattacharyya's Academic Motivation Test and Group Intelligence Test, Kuppaswamy's (Urban) and Pareek's (Rural) SES Scale were used along with the achievement test.

**Analysis -** Mean, SD, ANOVA test, Mann-Whitney U-test, correlation etc. were used. Two multiple regression equations were developed.

## **Major Findings :-**

1. Urban students did not show better performance in the Achievement Test in Chemistry (ATC) than rural students.
2. Boys did not show superiority in ATC over girls.
3. There was a positive correlation between the scores in ATC and Academic Motivation Test, ATC and Group Intelligence Test, urban and rural students' scores



in ATC and 'Income of the parents', rural students' scores in ATC and 'Education of the parents' as well as 'Occupation of the parents'.

4. Scores in ATC could be predicted from the scores in Academic Motivation Test, Group Intelligence Test and SES of the parents through multiple regression equation.

5. The ATC was reliable and valid. Norms were also satisfactory.

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**8. (KE 08) :-** For details see p. 27 of this report.

**Title of the Thesis :-** A cross-sectional study on differential aptitudes of secondary school students.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 347

**Objectives :-**

1. To determine the extent of differential aptitudes, viz. verbal reasoning, English usage, abstract reasoning and scientific aptitude of the students of class VIII (just promoted to class IX).

2. To determine the significance of differences in mean scores in the above three areas – sex-wise and strata-wise.

3. To determine the prognostic values in those four areas on the achievement of the students in the respective school performances.

**Methodology :-**

**Sample** – 420 boys and girls, reading in 11 schools in urban and rural areas in different districts of West Bengal.

**Tools** – Differential Aptitude Test (Verbal Reasoning) and an English Usage Test for students of Class VIII (just promoted to Class IX); Abstract Reasoning Test; Ghosh's Scientific Aptitude Test.

**Analysis**- Measures of central tendency, dispersion, skewness, kurtosis, F-test, t-test, correlation, etc.

**Major Findings :-**

1. Boys showed better performance in verbal reasoning than girls. Urban students showed superiority in verbal reasoning over rural students. Urban boys did not show better performance in verbal reasoning than urban girls.

2. There existed a significant difference in verbal reasoning between rural boys and girls.

3. Urban boys were not superior in verbal reasoning to rural boys.

4. Boys showed better performance in English usage than girls. Urban students showed superiority in English usage over rural students. Urban boys did not show better performance in English usage than urban girls.

5. There existed a significant difference in English usage between rural boys and girls.
  6. Boys showed better performance in abstract reasoning than girls. Urban students did not show superiority in abstract reasoning over rural students. Urban boys did not possess better proficiency in abstract reasoning than urban girls.
  7. There was a positive correlation between scores on verbal reasoning and Bengali, English usage and English, abstract reasoning and Mathematics, scientific aptitude and physical science.
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**9. (KE 09) :-** For details see p. 27 of this report.

**Title of the Thesis :-** An investigation into the learning disabilities developed by secondary school students in the area of equation sums in Algebra.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 697

**Objectives :-**

1. To conduct a survey of the learning disabilities developed by the beginners reading in secondary schools under the WBBSE in linear equation.
2. To conduct a scientific experiment on the effectiveness of two mathematical methods for prevention of learning disabilities usually developed by beginners in linear equation sums in one unknown in algebra.
3. To provide from the results of the experiment a satisfactory mathematical method for beginners for solution of linear equations.

**Hypotheses :-**

1. Students develop more learning disabilities in the understanding of linear equation-sums in one unknown than in the knowledge of solving such sums.
2. Students develop more learning disabilities in the application of linear equation-sums in one unknown than in the understanding of such sums.
3. Students develop more learning disabilities in the application of linear equation-sums in one unknown than in the knowledge of solving such sums.
4. The simplified method is more effective than the method of transposition for the development of knowledge of students in solving linear equation-sums in one unknown.
5. The simplified method is more effective than the method of transposition for the development of understanding of students in solving linear equation-sums in one unknown.
6. The simplified method is more effective than the method of transposition for the development of applicational ability of students in solving linear equation-sums in one unknown.

### **Methodology :-**

1. A diagnostic pre-test on linear equation in one unknown and 3 diagnostic test on knowledge of solving, understanding, and application were prepared and standardized on 400 class VIII students.
2. The final forms were administered on 1000 class VIII students of 24 randomly selected schools of Hooghly and 24-Parganas districts.
3. Afterwards 400 scripts were randomly selected. Objectivity, test-retest reliability, content and criterion related validity were determined.
4. Lesson units were prepared and the experiment was carried out in 4 randomly selected Bengali medium schools in Hooghly district. Control and experimental groups of equal size were set up in each school. In all, 200 class VIII students were finally included in the experiment.
5. Analysis of covariance design of duplicated experiments was followed; t-test was also used.

**Major Findings** :- The hypotheses numbers 1, 3, 4 and 6 retained; and 2 and 5 were rejected. The tests were reliable and valid.

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**10. (KE 10) :-** For details see p. 27 of this report.

**Title of the Thesis** :- Learning disabilities in the reasoning power of the students in Geometry – diagnosis and prevention.

**Reference** :- 4<sup>th</sup> Survey, Volume I, p. 701

### **Objectives :-**

1. To diagnose the major patterns of disabilities in a specific area of geometry with the help of tools specially developed for the purpose.
2. To try experimentally teaching methods, which would prevent development of learning disabilities in the area under study.

### **Methodology :-**

1. A diagnostic test in 'congruency of triangles' was constructed to identify patterns of disabilities, and was administered on 286 slow learners in geometry. Structured individual interviews were conducted with 20% students selected randomly from the original sample.
2. In the second phase, the experiment was conducted in 4 secondary schools with controlled and experimental groups.
3. The initial measures by the verbal creativity test and criterion measures by the diagnostic test in geometry were subjected to analysis of covariance.



## **Major Findings :-**

1. 33 major patterns of disabilities were identified.
  2. The experimental groups taught by audio-visual materials and techniques achieved significantly more than the controlled groups taught by conventional methods.
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**11. (KE 11) :-** For details see p. 27 of this report.

**Title of the Thesis :-** A critical study of scientific attitude and aptitude of the students and determination of some determinants of scientific aptitude.

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 730

## **Objectives :-**

1. To ascertain the aptitude of the students in science with the help of a specially developed scientific aptitude test.
2. To appraise the extent of scientific attitude of the students with the help of a specially developed attitude test.
3. To find out the extent of academic motivation of the students with the help of a standardized test, and the SES of the parents of the students with the help of an SES questionnaire.
4. To find out the sex-wise and strata-wise differences, if any, in the scientific aptitude and scientific attitude of the students.
5. To determine relationships between the scientific aptitude and variables such as scientific attitude and academic motivation of the students.
6. To develop a regression equation of the scientific aptitude on the independent variables identified by the researcher.

## **Methodology :-**

**Sample -** A scientific aptitude test was standardized on 620 boys and girls (just promoted to class IX) reading in 13 schools situated in urban and rural areas in different districts of West Bengal.

A scientific attitude test was also developed (N = 200).

**Other tools -** Bhattacharyya's Academic Motivation Test, Kuppuswamy's (Urban) and Pareek's (Rural) SES Scales.

**Analysis -** Central tendency, variability, ANOVA, correlation, F-test and t-test.

### **Major Findings :-**

1. Urban students did not show better performance in the scientific aptitude test than rural students.
  2. Boys did not possess more scientific aptitude than girls.
  3. Boys did not possess better scientific attitude than girls.
  4. There was appositive relationship between scientific aptitude and scientific attitude; scientific aptitude and academic motivation; and scientific attitude and academic motivation.
  5. Score in the scientific aptitude test could be predicted from scores in scientific attitude, academic motivation and socio-economic status of parents through multiple regression equation.
  6. Students having high scientific attitude were superior to those having low scientific attitude with respect to their scientific aptitude.
  7. Urban students belonging to the high SES group had more scientific aptitude than urban students belonging to low SES group.
  8. Rural students belonging to the high SES group did not show better scientific attitude than rural students belonging to low SES group.
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**12. (KE 12) :-** For details see p. 27 of this report.

**Title of the Thesis :-** Effects of variation in advance organizers on the cognitive subsum-ption in Life Science

**Reference :-** 4<sup>th</sup> Survey, Volume I, p. 367.

### **Objective :-**

To make an appraisal of the relative effectiveness of two different types of Advanced Organisers (AOs) on the criteria of immediate learning and retention i.e. cognitive subsumption by having learners of different cognitive styles and different levels of readiness for learning.

### **Specific Objectives:-**

- 1.To develop two types AOs, i.e. prose- passage type and pictorial type.
2. To develop instructional material in Bengali on the basis of Ausubelian principles of 'progressive differentiation' and 'integrative reconciliation'.
3. To develop a series of cognitive subsumption test to assess the consolidation of learnt subject matter.
4. To develop and standerdise the test of readiness for learning.
5. To perform the experiment and to compare the effectiveness of two types of AO on the criteria of immediate learning and retention.
6. To study the interactions among instructional treatments, readiness for learning and cognitive style.

## **Methodology :-**

**Sample-** 480 learners of Class IX including 240 boys and 240 girls.

**Tools-** 1. Witkin's Embedded Figure Test was used to measure the cognitive style of the learner.

2. The treatments were assigned randomly to the treatment groups. The experiment was in the sequence, studying of AO – reading of instruction material- teacher controlled discussion- administration of Witkin's Test.

3. On the completion of teaching of all 7 sub-units of the unit 'Photosynthesis', Witkin's Test-I was administered to measure immediate learning. After an interval of 4 weeks, Witkin's Test-II was administered to measure the retention of the learnt subject matter.

**Analysis** – The experimental results were analysed on the basis of two  $2 \times 2 \times 2$  factorial designs.

## **Major Findings :-**

1. The cognitive subsumption of the concept of life science was facilitated by the advance introduction of relevant subsuming concepts.
2. Both types of AO facilitated the retention of subject matter even after an interval of 4 weeks.
3. Instructional strategy with the pictorial type of AO was found better than the prose-passage type of AO.
4. Cognitive subsumption of complex subject matter was dependent on the factor of readiness for learning.
5. Difference in cognitive style produced a difference in cognitive subsumption of the learning task.
6. The original hypothesis predicting facilitating effects of both types of AO was fully observed.
7. For subjects like life science, the pictorial type of AO enhanced learning and retention. The obvious implication of this practice is that one should carefully decide the type of AO that can be considered best in a particular learning situation.

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**13. (KE 13) :-** For details see p. 27 of this report.

**Title of the Thesis** :- Reaction to frustration in school children.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 874.

## **Objective :-**

To explore the relationship of organismic variables (sex and growth) and environmental variables (residence, socio-economic climate, etc.) to reaction to frustration.



## **Methodology :-**

**Sample** – Boys and girls of grades VI, VIII and X formed the population. Stratified sampling for a normative study covering 904 subjects and survey study covering 700 subjects was resorted to.

**Tools** – A Family Questionnaire; Socio-Economic Status Scale of Sarkar; School Organisation Climate of Sharma; and a semi-projective type Reaction to Frustration Test.

**Analysis** – The scores were trichotomised using quartile deviation chi-square test and 't' test.

## **Major Findings :-**

1. The effects of organismic variables (age and sex) and ecological variables (five in all) on frustration reaction patterns of secondary school children have been studied.
  2. It has been found that sex had little differential effect, age had significant differential effect and the family structure and tension had significant effect, whereas rural/urban, SES and school climate had little differential effect on frustration reaction patterns.
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**14. (KE 14) :-** For details see p. 27 of this report.

**Title of the Thesis** :- A critical study of some affective outcomes of the students as predictors of their mathematical ability.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 1287.

## **Objectives :-**

1. To construct and standardize 4 tests on self-concept, anxiety, attitude to mathematics and a questionnaire on academic motivation.
2. To find out their relation to students' achievement in mathematics, sex-wise and stratum-wise.
3. To fit a regression equation so that prediction of achievement in mathematics can be made.

## **Methodology :-**

**Sample** – In all 16 schools (6 urban, 5 semi-urban and 5 rural) were selected. 600 students took the various tests.

**Tools** – A test on Self-concept in Mathematics, a test of Anxiety towards Mathematics and a questionnaire on Academic Motivation.

**Analysis** – Analysis of variance, correlation and academic motivation.

**Major Findings :-**

1. Boys showed higher self-concept than girls.
  2. There existed significant correlation between mathematics and self-concept, between mathematics and anxiety, between mathematics and attitude, between mathematics and academic motivation.
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**15. (KE 15) :-** For details see p. 28 of this report.

**Title of the Thesis** :- A study on the prognosis of writing abilities with the help of creativity and intelligence of the students.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 780.

**Objectives :-**

1. To standardize a writing ability test (WAT).
2. To appraise students' proficiency of writing ability (WA).
3. To determine the differences in writing ability sex-wise and strata-wise.
4. To determine relation between WA and intelligence, originality, fluency and flexibility.
5. To determine multiple regression of WA with the above stated factors.
6. To find out general factors in different dimensions of WAT.

**Methodology :-**

**Sample** – 604 students, covering 302 boys and 302 girls, from 16 Bengali medium schools of rural and urban West Bengal.

**Tools** – Writing Ability Test (WAT), General Intelligence (GI) Test of Bhattacharyya and Verbal Creativity Test of Biswas.

**Analysis** – Ogives, ANOVA, multiple regressions and factor analysis were employed.

**Major Findings :-**

1. Urban students showed better results in WAT in Bengali than their rural counterparts, while for the boys and girls, the rural and urban differences did not exist.
2. Urban boys performed better than rural boys and the same was true with urban girls as compared to rural girls.
3. It was found that there existed a positive correlation between WAT and GI, WAT and originality, WAT and creativity, WAT fluency and flexibility.

4. WAT scores could be predicted by GI, originality, fluency and flexibility scores.
  5. It was possible to extract a general factor in dimensions identified in writing ability.
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**16. (KE16) :-** For details see p. 28 of this report.

**Title of the Thesis :-** Study of divergent thinking in relation to scholastic achievement, cognitive style, self-concept and interest pattern.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1060.

**Objectives :-**

1. To predict divergent thinking (DT) from 4 predictors, i.e. scholastic achievement, cognitive style, self-concept and interest pattern.
2. To test if DT varies in different combinations with respect to the predictors.
3. To identify if there is a common factor accounting for unique constellations of cognitive and affective correlates of DT.

**Methodology :-**

**Sample** – 349 students of standard X from urban and rural schools of 24 Parganas Of West Bengal.

**Tools** – Torrance Tests of Creative Thinking by E.P. Torrance; Embedded Figure Test by Witkins; Non-language Preference Schedule by Chatterjee; '*Atmabodh Nimayak*' and Scholastic Achievement Test developed by the researcher.

**Analysis** – Correlation, multiple regression analysis and factor analysis.

**Major Findings :-**

1. There was a significant relationship between DT and cognitive style, self-concept, interest pattern and scholastic pattern.
  2. The above factors were good predictors of DT.
  3. There was a significant difference between field-dependent and field-independent cognitive style on the criterion of DT.
  4. There were unique constellations of cognitive and affective correlates of DT existing in terms of common factors.
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**17. (KE 17) :-** For details see p. 28 of this report.

**Title of the Thesis :-** A child's conception of the fundamentals of Euclidean geometry.



**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 1292.

**Objective** :-

To develop the efficacy of Piaget's method of investigating epistemological problems (like objects, space, time, etc.) in learning problems in any branch of knowledge (specially mathematics) of the curriculum of formal education, which is usually based on some self-evident truths.

**Methodology** :-

**Sample** - The study is both longitudinal and cross-sectional because consecutive age-groups - (5-6), (6-7) and (7,8) years - have been taken and in each age group 30 children have been included in a randomized way. It is quasi-experimental because children have been asked to perform some tasks, and then a clinical type of question-answer has been resorted to.

**Tools** - Two types of tests - auxiliary (prerequisites for understanding the axioms) and main (the axioms) - framed in both verbal and non-verbal types. There are 20 items in the main test. There are 3 items of plane, straight line and point in the auxiliary test.

**Analysis** - The responses were given numerical value and then ANOVA were applied. Qualitative analyses of the response- protocols were also done.

**Major Findings** :-

1. The 'F' ratio of children's acquisition of five groups of axioms (axiom factor) was significant.
2. The 'F' ratio of the age-groups of children (age factor) was significant.
3. Understanding of axioms as self-evident truths occurs in the course of growth between ages 5 and 7 years.
4. There were age variations among the children for the conceptual development of different axioms present in the same group.
5. There was an order in the understanding of axioms which did not follow the general principle of development of Euclidean axioms.

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**18. (KE 18)** :- For details see p. 28 of this report.

**Title of the Thesis** :- Effects of strategies of instruction on mastery learning.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 1383.

**Objective** :-

To study comparative effectiveness of different strategies of instruction on the criterion of immediate attainment of mastery.

### **Methodology :-**

**Sample** – 300 learners of standard VIII of 5 urban boys' schools, distributed over 3 districts. 3 treatment groups were formed.

Transmission of heat was the subject for mastery learning. Linear programmed text, branching programmed text, workbook and audio-visual (Tape-slide, filmstrip, transparency, experimental kit) aids were developed.

**Tools** – Tests of Formative Evaluation and Summative Evaluation which were developed.

### **Major Findings :-**

1. There was no significant difference among different strategies of instruction on the criterion of immediate attainment of mastery.
  2. As regards the retention of mastery, all the three groups differed significantly in favour of the third strategy followed by the second and the first. Hence, formative evaluation is best suited for mastery learning.
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**19. (KE 19) :-** For details see p. 28 of this report.

**Title of the Thesis** :- Learning disabilities in critical thinking in some areas of Physical Science: Diagnosis and prevention.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 1547.

### **Objectives :-**

1. To diagnose the detailed pattern of disabilities in some areas of physical science.
2. To try innovative teaching methods which could work as remedial tools.

### **Methodology :-**

**Sample** – 250 students of class X from 4 schools (2 boys' and 2 girls') of backward areas, who were tested for learning disability. For testing preventive measures, 170 students were selected from the above groups.

**Tools** – A diagnostic test; an intelligence test; and Academic Motivation Test of Bhattacharyya.

**Analysis** – F-ratios and Mann-Whitney U-test.

### **Major Findings :-**

1. 23 major patterns of disability were identified.

2. The F-ratio between variance and within classes was significant.
  3. The U-value showed improvement in the achievement motivation of the experimental group.
- 

**20. (KE 20) :-** For details see p. 28 of this report.

**Title of the Thesis :-** A cross-sectional study on the differential aptitudes of the students in English.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 743.

**Objectives :-**

1. To develop and standardize an English usage test.
2. To develop a verbal reasoning test in English.
3. To develop a reading comprehension test in English.
4. To determine the significance of differences in mean score in the English usage test, the verbal reasoning test in English and the reading comprehension test in English.
5. To develop a multiple regression equation of the achievement of the students in English on the three differential aptitudes for English, namely English usage, verbal reasoning and reading comprehension.

**Methodology :-**

**Sample -** 600 students of class X of 16 schools (8 from urban and 8 from rural areas, and 4 boys' and 4 girls' of each category) distributed all over West Bengal.

**Tools -** An English Usage Test; a Verbal Reasoning Test and a Reading Comprehension Test were developed and standardized.

**Analysis -** Descriptive statistics, ANOVA and regression analysis.

**Major Findings :-**

1. Boys showed more proficiency in English usage test than girls, and so did urban students as compared to their rural counterparts.
2. While rural boys-rural girls and urban girls-rural girls did not differ from each other.
3. Boys and girls did not differ in their verbal reasoning test, and neither did urban and rural students.
4. In reading comprehension too boys and girls did not differ significantly and neither did urban and rural students.



5. Achievement of students in English could not be predicted from English usage, verbal reasoning and reading comprehension.

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**21. (KE 21) :-** For details see p. 28 of this report.

**Title of the Thesis** :- A critical estimate of the abilities of the students in different aspects of Bengali and finding out their relative interdependence.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 744.

**Objectives** :-

1. To construct and standardize a proficiency test in Bengali for the students of class V.
2. To appraise the extent of proficiency in Bengali students of class V.
3. To determine if there are significant differences in proficiency sex-wise and strata-wise.
4. To find out if a general factor existed within different dimensions of the test.
5. To develop multiple regression equation on reading comprehension on the factors of proficiency.

**Methodology** :-

**Sample** - 672 students of class V, covering boys and girls belonging to rural and urban locales.

**Tools** - A proficiency test in Bengali.

**Analysis** - ANOVA, factor analysis and multiple regression analysis.

**Major Findings** :-

1. Urban students showed better performance in the proficiency test in Bengali as compared to their rural counterparts and the same was true with urban girls.
  2. Students with high proficiency in Bengali vocabulary, spelling, stylistic transformation, word application, grammar and reading comprehension were found to be superior in total proficiency test in Bengali as compared to their low profile counterparts.
  3. Reading comprehension in Bengali was predicted from the scores in vocabulary, spelling, stylistic transformation, word application and grammar.
  4. Boys and girls, urban boys and urban girls, rural boys and rural girls, urban boys and rural boys did not differ significantly on their proficiency test in Bengali.
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**22. (KE 22) :-** For details see p. 28 of this report.

**Title of the Thesis :-** A study on verbal creativity, general anxiety and self-concept as predictors of creative reading ability of students.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1065.

**Objectives :-**

1. To ascertain the creative reading ability (CRA) with the help of a standardized CRA test.
2. To appraise the extent of self-concept and general anxiety of the students with the help of two weighted scales in the two dimensions.
3. To find out sex-wise differences if any in the CRA test.
4. To determine the relationship between the creative reading ability of the students and the independent variables stated above in (3).
5. To develop a regression equation of the CRA of the students on the determinants identified in the study.

**Methodology :-**

**Sample** – Students of class VIII of 15 schools in Calcutta and in rural areas formed the sample of the study.

**Tools** – Creative Reading Test (CRT), Self-Concept Questionnaire (SCQ), General Anxiety Neurosis (GAN) and Verbal Creativity (VC).

**Major Findings :-**

1. Boys did not show better creative reading ability (CRA) than girls, while urban students showed better in CRA as compared to rural students.
  2. Boys did not show better self-concept than girls.
  3. Rural students did not show better self-concept than urban students.
  4. Boys exhibited less anxiety than girls.
  5. Creative reading ability and self-concept were found to be significantly correlated.
  6. There was a positive correlation between the scores obtained by the students in the CRA test and the VC test.
  7. There was a negative correlation between GAN and VC.
  8. Creative reading ability could be predicted from SCQ, GAQ and VCT.
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**23. (KE 23) :-** For details see p. 29 of this report.

**Title of the Thesis :-** A critical appraisal of the abilities of the students in some aspects of English as a second language and finding out some linguistic factors.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 748.

**Objectives :-**

1. To standardize a proficiency test in English.
2. To determine significant differences in mean attainment in English sex-wise and strata-wise.
3. To find out a general factor in different dimensions of the proficiency test in English.

**Methodology :-**

**Sample** – 606 students covering 304 boys and 302 girls. Further the rural and urban sample comprised 333 and 273 respectively from 3 types of schools.

**Tools** – A proficiency test in English was used as a tool.

**Analysis** – The collected data were treated using ANOVA, factor analysis and regression analysis.

**Major Findings :-**

1. The urban students showed better performance in the proficiency test in English as compared to their rural counterparts, and so were urban boys as against rural boys, and urban girls as against rural girls.
  2. Students with high proficiency in vocabulary, spelling, stylistic transformation, deviational structure, applied grammar, and contextual meaning were superior in proficiency in English as compared to their low profile counterparts.
  3. However, there were no differences between boys and girls, as well as rural boys and rural girls.
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**24. (KE 24) :-** For details see p. 29 of this report.

**Title of the Thesis :-** A study in creativity, motor ability and motor creativity of adolescent students.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1045.

**Objectives :-**

1. To find the relationship between creativity, motor ability and motor creativity.



2. To study whether motor creativity was dependent upon creativity or on motor ability or on both.
3. To study whether sex or strata (in this case, athlete or non-athlete) had any influence on creativity or its components, on motor ability, and on motor creativity.
4. To study whether motor creativity could be predicted if the original scores of creativity and motor ability were known.

**Methodology :-**

**Sample** – 600 students aged between 13 to 16 years.

**Tools** – Passi Tests of Creativity (Bengali version by M.C. Ghosh); Motor Ability measured through 5 Standardised Tests and Motor Creativity measured through a newly constructed Motor Creativity Test consisting of 5 test items.

**Analysis** – Descriptive statistics, analysis of variance, product-moment correlation, multiple correlation and regression analysis.

**Major Findings :-**

1. Boys were superior to girls in motor ability, creativity and its components.
2. Athletes were superior to non-athletes in motor creativity.
3. The boys' athlete group was superior in all the parameters to the other three groups.
4. Creativity, motor ability and motor creativity were positively related with each other.
5. The scores of all the 4 groups in motor creativity, creativity and motor ability had a significant relationship.
6. Motor creativity scores were directly related with scores in motor ability and creativity, and were also dependent on them.
7. Motor creativity scores could be predicted from the multiple regression equation with the help of creativity and motor creativity scores.

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**25. (KE 25) :-** For details see p. 29 of this report.

**Title of the Thesis** :- A cross-sectional study on the effect of academic motivation and scientific attitude on science aptitude of students.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 912.

**Objective** :- To construct and standardize tools to measure academic motivation, scientific attitude and scientific aptitude.

### **Methodology :-**

**Sample** – 600 students of 24 schools (12 urban+12 rural) were selected at random.

**Tools** – Scientific Aptitude Test, Scientific Attitude Questionnaire and Academic Motivation Questionnaire.

**Analysis** – Descriptive statistics, ANOVA and regression analysis.

### **Major Findings :-**

1. Significant differences were found between sub-groups only in certain cases.
  2. On scientific aptitude, urban students were superior to rural students, particularly girls. Scientific aptitude could be predicted to a considerable extent from academic motivation and scientific attitude both of which showed a highly significant positive relationship with it.
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**26. (KE 26) :-** For details see p. 29 of this report.

**Title of the Thesis :-** A cross-sectional study of professional traits of secondary school teachers and their impact upon classroom communication.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1444.

### **Objectives :-**

1. To investigate some necessary traits of the teacher's personality which make him a good teacher and, at the same time, maximise his impact on class room communication.
2. To develop (a) a standardized scale for measuring the professional traits for teachers (DIPTOTS)  
(b) standardized scale for assessing classroom communication (CCSST)
3. To determine the extent of professional traits sex wise, strata wise and training wise.
4. To find out if there is a 'g' factor among professional traits.
5. To determine a multiple regression equation of class room communication on the dimension of professional traits.

### **Methodology :-**

**Sample** – 450 teachers from 83 schools from 7 districts of West Bengal.

**Tools** – Professional Traits of Secondary School Teachers (DIPTOTS) and Assessment of Classroom Communication.

**Analysis** – U-test, ANOVA, regression and factor analysis.

**Major Finding :-**

The inter- and intra –relationships in the dimensions of the DIPTOTS and CCSST test scores gave a universe from which an enterprising teacher could draw ideas for his professional advancement.

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**27. (KE 27) :-** For details see p. 29 of this report.

**Title of the Thesis :-** A comparative study between the students belonging to Scheduled Castes and Scheduled Tribes, including the Lodhas, on general intelligence and creativity.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1623.

**Objectives :-**

- 1.To study the distribution of general intelligence and verbal creativity among students (boys and girls) studying in different classes, and to carry out a comparative study of the two groups i.e., SCs and STs on these two variables.
2. To compare the high- creative SC group with the low-creative SC group and the high- creative ST group with the low-creative ST group in terms of general intelligence.
- 3.To determine the inter-relatedness of general intelligence and the different dimensions of creativity namely, fluency ,flexibility and originality of students belonging to SCs and STs.

**Methodology :-**

**Sample** – 10 schools selected from tribal areas, with 246 SC and 246 ST students covering boys and girls studying in classes V, VI and VII.

**Tools** – Verbal Creativity Test developed by Biswas and the General Intelligence Test developed by Bhattacharya.

**Analysis** – Descriptive statistical methodology, t-test and correlation.

**Major Findings :-**

- 1.SC and ST students of higher classes were found to be superior to those of the lower classes in both general intelligence and creativity.
2. The same was true sex wise. Boys and girls did not differ much on the above two factors. The general intelligence of ST students was the same as that of SC students. But with respect to creativity, SC students showed superiority over ST students.



3. High-creative students were also high in general intelligence. Coefficients of correlation between the dimensions of creativity and general intelligence were all significant.

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**28. (KE 28) :-** For details see p. 29 of this report.

**Title of the Thesis** :- A study of the impact of some psycho-social determinants on the educational achievement of tribal students of West Bengal.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 1656.

**Objective** :-

To develop a standardized scale for measuring the academic motivation of tribal students and to determine the extent of academic motivation of students belonging to high- and low-income groups of tribal people.

**Methodology** :-

**Sample** – 570 tribal students of both the sexes distributed over 12 schools in 3 districts in West Bengal.

**Tools** – A standardized academic motivation questionnaire (Likert-type).

**Analysis** – Regression analysis.

**Major Findings** :-

21 hypotheses were formulated for the purpose of the study. Out of these, 5 hypotheses were rejected. Various groups (class-wise and sex-wise) were compared in terms of academic motivation. The study did not provide any theoretical interpretation, rather, it gave a general picture of the academic motivation of tribal children and problems related to it.

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**29. (KE 29) :-** For details see p. 30 of this report.

**Title of the Thesis** :- A comparative study of the values of some secondary school girls differing in age and in socio-economic and cultural status.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 1693.

### **Objectives :-**

1. To ascertain the value structure of secondary school girls in different age-groups and in differing socio-economic and cultural settings.
2. To conduct a small experiment to test whether value learning on some identified values (honesty, sincerity, dutifulness, loyalty, cooperation, conformity to rules, respect for superiors) could be improved through educational stimulation.

### **Methodology :-**

**Sample** – The study was conducted in three parts. In the first part, the researcher compared distribution of (Pre-identified) values among 352 rural refugee girls studying in classes V, VI and VII in Chakdah Block of West Bengal. The second part (experimental) was carried out in the classes V, VI and VII in the investigator's own school at Chakdah. In the third part, the value questionnaire was canvassed with 167 girls of classes VII, VIII and IX from who had assembled for a summer camp (in the USA). The third part was an add-on to the original design of the study as the investigator got an opportunity to travel to the USA during the course of the study.

**Analysis** – Collected data were treated qualitatively.

### **Major Findings :-**

1. The mean scores of values showed improvement from classes V to VII but deteriorated from classes VII to IX.
2. Non-refugee girls showed higher mean scores on values than refugee girls.
3. Value learning improved with conscious educational intervention.
4. Value scores of Indian girls on the 7 stated values showed higher scores than that of the girls in the USA.

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**30. (KE 30) :-** For details see p. 30 of this report.

**Title of the Thesis** :- A study of attitude towards school in relation to interest pattern, self-concept, adjustment and scholastic achievement.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 1889.

### **Objective :-**

To find out the relationship between attitude toward school (the criterion variable) and variables like interest pattern, self-concept, adjustment and scholastic achievement (the predictor variables).

### **Methodology :-**

**Sample** – 400 pupils of class IX of urban and rural areas of 24 Parganas and Nadia districts of West Bengal.

**Tools** – Chatterjee's Non-language Preference Record, Self-concept Scale, Bells Adjustment Inventory, Attitude Toward School Scale and an achievement test for class IX.

**Analysis** – Descriptive statistics, regression analysis and factor analysis.

### **Major Findings :-**

1. There was a significant relationship between interest patterns, self-concept, adjustment behaviour and scholastic achievement and attitude towards school of students.
  2. The 4 variables- interest, self-concept, adjustment and achievement – combined together served as a good predictor of attitude towards school.
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**31. (KE 31) :-** For details see p. 30 of this report.

**Title of the Thesis** :- A cross-sectional study of the impact of scientific attitude, motivation and self-concept in science upon the achievement of students in Science.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 1922.

### **Objectives :-**

1. To ascertain achievement of students in physical science.
2. To appraise the extent of self-concept in science.
3. To find out the extent of motivation of the students in science and determine the relation among and between them.

### **Methodology :-**

**Sample** – 594 students of class IX in 12 schools distributed all over South West Bengal.

**Tools** – Self-concept in Science Questionnaire; Motivation in Science Questionnaire and an Achievement Test in physical science.

**Analysis** – Descriptive statistics, ANOVA and regression analysis.



### **Major Findings :-**

1. In physical science, urban boys achieved higher than rural boys and urban girls, urban students achieved better than rural students.
  2. There was no difference in the achievement in physical science of boys and girls.
  3. There was no difference in the self-concept of science between urban and rural students.
- 

## **VISVA-BHARATI UNIVERSITY**

**1. (VE 01) :-** For details see p. 30 of this report.

**Title of the Thesis :-** Some behaviour problems of the secondary school students of the district of Burdwan and their causes.

**Reference :-** 3<sup>rd</sup> Survey, p. 121

### **Objectives :-**

1. To identify typical behaviour problems of adolescents studying in schools located in three environmental situations, viz. urban, industrial and rural.
2. To identify the causes of such problems and to see whether there was any dominant cause in a typical environment, viz. urban, industrial and rural.

### **Methodology :-**

- Sample** – 1. Secondary school students of the district of Burdwan, West Bengal.
2. The sample was selected through stratified randomization of schools, the school being a unit of sampling in the first phase of the study, and the student in the second. All the students identified as having behaviour problems were included in the sample in the second phase.
  3. 18 schools were taken from which 130 students of the age group 13-15 years were selected for study. The distribution was urban – 54, industrial – 42 and rural – 34. A matched group of children with the same proportion was selected from non-problem students by randomization.
- 12 hypotheses regarding the causes were formulated.

**Tools** – Self-rating Inventory, Bhagia's school Adjustment Inventory, Pati's Insecurity Questionnaire, Pati's Inferiority Questionnaire and an interview schedule constructed by the researcher.

**Analysis** – Parametric and non-parametric statistical methods were used to test the hypotheses.

## **Major Findings :-**

1. Dissatisfying home conditions, lack of parental understanding and inconsistent behaviour of the elders led to behaviour problems.
  2. Dissatisfying environment in schools, particularly with school programmes, social conditions, teachers and the student community contributed much towards behaviour problems.
  3. Frustration of recognition expectation and feelings of insecurity and inferiority were powerful determinants of behaviour problems.
  4. The gap between aspiration and actualization was found to be one of the causative factors for behaviour problems.
- 

**2. (VE 02) :-** For details see p. 31 of this report.

**Title of the Thesis :-** Education of the Santals – Identification of educational needs, probabilities and problems.

**Reference :-** 4<sup>th</sup> Survey, Volume II, p. 1456

## **Objectives :-**

1. To identify the life needs and educational needs of the Santals.
2. To develop a variable curriculum to meet the needs.

## **Methodology :-**

1. This was a descriptive survey. Intensive, extensive observation, questionnaires, and a survey schedule were the tools used.
2. An analysis of official and research documents was also undertaken. The school syllabus was analysed in the light of the educational needs.

## **Major Findings :-**

1. The Santals belonged to a distinct tribe very closely related to the Mundari group of tribes in India. Most of the Santals lived in Orissa, Bihar and West Bengal. They had a distinct culture of their own. Though degenerated, they had their own forms of social initiations, education and life programme. The tribe had developed a tribal art and spirit of independence. They could easily be drawn into the mainstream and many had been drawn through conversion to Christianity. There was a tendency to retain the cultural identity with the mainstream.
2. Literacy was very poor and so also education. Many causes were in operation for depriving them of education and economic development. However, they had developed an urge for development and an aspiration for better life through education. Educational aspiration was at a very low level. Vocational aspirations being at a very low level, the urge for education and training was very poor. The

converts to Christianity had, however, developed these to a much higher level. The number of highly educated Santals was very small.

3. The researcher identified needs in 7 areas, viz. economic, environmental, personality, communication, socio-cultural, socio-political and political.

4. The educational needs were classified into 4 developmental areas, viz. development of the child as a person, a learner, a worker and a citizen.

5. The probability of different schooling strategies to meet the needs and solve the problems was studied. The problems were related to various input processes and output variables listed from previous studies. The strategies were studied under the heads: purpose, time target, setting, involvement, role, mode of interaction, programme, support system, finance, and control. An analysis showed the strategy elements and their effectiveness or otherwise in solving problems. The identified problems were :-

- i) apathy of community members to education, ii) enrolment,
- iii) retention,
- iv) stagnation retardation,
- v) relevance of the content of education,
- vi) post-education occupation,
- vii) alienation, and
- viii) communication.

From the studies of these strategies and problems, the probability of the education of the Santals was reported. Considering the input variables needed and existant, the researcher came to the conclusion that the real problem lay in the lack of adequate coordination of resources. For this it was necessary that

- (a) the system of education be locally adaptable,
- (b) the content and strategies be based on the local culture, and (c) appropriately trained teachers should be provided.

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**3. (VE 03) :-** For details see p. 31 of this report.

**Title of the Thesis** :- An evaluative study of Harijan and Tribal Welfare Department High Schools in Orissa in respect of student achievement.

**Reference** :- 4<sup>th</sup> Survey, Volume II, p. 1435

**Objectives** :-

1. To investigate the socio-economic background of the students of the Harijan and Tribal Welfare Department (H&TWD) high schools in comparison with Education Department (ED) high schools.
2. To evaluate the facilities of H&TWD high schools taking ED high schools as the criterion.
3. To evaluate the extent of stagnation of students in these two types of schools.



4. To evaluate the performance of students at the annual examination in these types of schools.

5. To evaluate the student achievement (attitude, scholastic achievement, personality characteristics, interests and levels of occupational aspiration) of students of H&TWD high schools taking the students of ED high schools as criterion.

### **Methodology :-**

**Sample-** The present study was designed to compare two types of high schools i.e. H&TWD high schools and ED high schools distributed over 15 educational circles in 13 districts of Orissa. 15 H&TWD schools were selected randomly out of 85 full-fledged high schools, at least 1 from each district. 15 ED schools were selected purposively out of 2902 full-fledged high schools. 441 SC and ST and 106 other caste students of H&TWD high schools, and 138 SC and ST and 437 other caste students of ED high schools entering class V were studied for stagnation. 383 SC and ST and 142 other caste students of H&TWD schools and 190 SC and ST and 429 other caste students of ED high schools were studied for scholastic achievement in mathematics. In all, 409 SC and ST and 163 other caste students from ED high schools were respondents for other areas.

**Tools –** A socio-economic status scale, questionnaires and pro-formas, scholastic achievement tests, questionnaires to assess personality, interests and attitudes.

### **Major Findings :-**

1. SC and ST students in H&TWD schools in comparison with SC and ST students in ED high schools came from lower socio-economic status though in occupation there was no significant difference.
2. Per capita expenditure for SC and ST students in H&TWD students in H&TWD schools was higher.
3. Stagnation was higher in the case of SC and ST group of students.
4. Other caste students' performance was better in annual examination results in both types of schools.
5. SC and ST students showed unfavourable attitudes towards school, classmates, teachers, curriculum and science teaching in those classes where their number was smaller than other caste students.
6. SC and ST students showed marked developed personality characteristics in comparison with other caste students in H&TWD schools, except in punctuality.
7. SC and ST students of H&TWD schools showed greater interest in artistic and social service area. Comparing SC and ST students with other caste students in all schools taken together, the SC and ST students showed superiority in level of intensity in interest in outdoor and social service areas and inferiority in music, drama, artistic and social service areas.
8. Comparison of level of occupational aspiration revealed that SC and ST students

in H&TWD schools were inferior in comparison to other caste students in the same schools; all SC and St students showed the same result, though other caste students in ED high schools and SC and ST students in the same schools showed superiority, but not significantly.

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**4. (VE 04) :-** For details see p. 31 of this report.

**Title of the Thesis :-** Identification of school climate and study of its effect on the scholastic achievement and development of certain personality characteristics of secondary schools.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 1888.

**Objectives :-**

1. To identify the determinants of school climate.
2. To examine the effect of school climate on scholastic achievement of students.

**Methodology :-**

**Sample** – All the secondary aided schools of districts Birbhum and Burdwan constitute the population. The sample consisted of 51 schools, which is 10% of the population. Stratified random selection was made with subdivision-wise distribution, sex and location as the bases for classification.

**Tools** – School-Climate Description Questionnaire developed by the investigator; results of Madhyamik Pariksha conducted by WBBSE and ratings from the teachers on the development of selected personality characteristics.

**Analysis** – Correlation, cluster-analysis, profile for a cluster, significance of difference in the mean determinant measure between cluster of schools, and chi-square test to measure the effect of school climate on the development of personality characteristics.

**Major Findings :-**

1. Six distinct organizational climate types were identified on the basis of 9 determinants.
  2. Out of the 9 determinants of school climate, 'headmaster-staff relationship', administrative capacity of the headmaster, teachers' job satisfaction and 'physical facility of the school' were found to contribute significantly. The other determinants, namely, close supervision by the headmaster, teacher-student relationship, teacher-teacher relationship, dutifulness and punctuality of teachers and student-student relationship were not found to be statistically significant.
-

**5. (VE 05) :-** For details see p. 31 of this report.

**Title of the Thesis** :- Teachers as perceived by the society.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 1018.

**Objectives** :-

1. To study the nature and extent of the real self-concept of competence and the ideal self- concept of competence, and the difference between the two.
2. To study the nature and extent of mental health in the group studied.
3. To study the relationship between real self-concept/ ideal self- concept and mental ill health / academic achievement.
4. To study the relationship between each of the five facets (social, intellectual, physical, emotional and general) of self-concept in competence and mental ill health.
5. To study the relationship between each of the five facets and academic achievement.
6. To make a comparative study of the three groups of students: the commerce group, the science group and the combined group.

**Methodology** :-

**Sample**-432 first year science and commerce honours girl students from seven good institutions with an English medium background and age between 18 and 20 years.

**Tools** – A Self- Concept Inventory constructed and standardized by the investigator; Mental Ill-Health Inventory and higher secondary marks in two common subjects taken as a measure of academic achievement.

**Analysis** – Mean, median, mode, S.D., skewness and kurtosis, chi-square test, t-test. coefficient of correlation, partial coorelation and factorial analysis.

**Major Findings** :-

1. Real self-concept scores, ideal self-concept scores, real – ideal discrepancy scores and mental ill-health scores were found to be more or less normally distributed in the sample, and the three groups did not differ significantly among themselves in respect of distributions of scores on these variables.
2. Real self-concept and ideal self-concept were highly correlated.
3. Students with high real self-concept scores showed lower discrepancy scores.
4. Students who perceived themselves to be highly competent were relatively free from mental ill-health symptoms.
5. A trend could be noticed to suggest that high ideal self –concept was conducive to mental health.



6. Discrepancy between real and ideal self-concept was found to be associated with mental ill health.

7. Academic achievement was positively associated with perceived intellectual competence but not with scores of other areas of self-competence. However, ideal self-concept regarding their competence did not seem to affect the academic achievement scores.

8. Discrepancies between the real and ideal self-concept did not affect the academic achievement of the commerce group; but in the science group, these two were positively related.

9. Regression coefficients revealed that intellectual competence had high positive influence upon the academic achievement of both the science group and the commerce group. The other facets of competence showed a negative influence on the academic achievement of the science group.

10. Students who revealed mental ill-health symptoms were poor in academic achievement.

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**6. (VE 06) :-** For details see p. 31 of this report.

**Title of the Thesis** :- A study of the determinants of scholastic achievement in rural and urban areas.

**Reference** :- 5<sup>th</sup> Survey, Volume II, p. 1874.

**Objectives** :-

1. To structure and validate a tool to study how teachers are perceived by members of society in terms of their role performance and role expectation.
2. To compare the perceptions of different strata of society.
3. To compare society's perceptions of teachers in different components of role performance and role expectations.
4. To compare the role expectations and role performance.
5. To draw profiles comparing role performance and role expectations.

**Methodology** :-

**Sample** – The researcher selected Tamil Nadu state for the study. 20 urban and 20 rural areas were selected at random – one from each district. Since Madras district does not have any rural area, 10 rural and 19 urban areas were selected from there. Further, 20 houses and a school were chosen at random from each of the rural and urban areas. From these schools and houses, 1522 respondents were selected. But finally the researcher got 1055 subjects. The multi-stage random sampling technique was adopted for selection of the sample.

**Tools** – An Opinionnaire on Teachers as perceived by society was prepared.

**Analysis** – Critical ratio, 't' test and graphical representation.

**Major Findings :-**

1. There was no significant difference between urban and rural people in their global perception of teachers.
  2. There was a significant difference between the age groups below 20, 30-39, 42-49 and 52-59 in their global perception of teachers, but there was no significant difference between other age groups in their global perception of teachers.
  3. There was a significant difference between different professional strata in their global perception of teachers.
  4. There was a significant difference among the different income groups of the society in their global perception of teachers.
  5. There was a significant difference between males and females in their global perception of teachers.
  6. There was a significant difference only between the educational classes Standards I-V and Standards XI-XII; Standards I-V and degree and diploma classes and Standards VI-X and degree and diploma classes; but there was no significant difference between other educational classes in their global perception of teachers.
  7. There was no significant difference between urban and rural people in their global expectations from teachers.
  8. There was a significant difference only between the age groups below 20 and 30-39, but there was no significant difference between urban and rural people in their global expectations from teachers.
  9. There was significant difference between the professional strata in their global expectations from teachers: farmers vs. teachers, farmers vs. educational administrators, farmers vs. industrial workers, doctors vs. government employees; and teachers vs. lawyers.
  10. There was a significant difference between the income groups below Rs. 1000 and Rs. 1000 to Rs. 2000, but there was no significant difference other income groups in their global expectations from teachers.
  11. There was no significant difference between males and females in their global expectations from teachers.
  12. There was no significant difference among the different educational classes of society in their global expectations from teachers.
- 

**7. (VE 07) :-** For details see p. 31 of this report.

**Title of the Thesis :-** An enquiry into the nature of self-concept in the area of competence and its impact on mental health and academic achievement.

**Reference :-** 5<sup>th</sup> Survey, Volume II, p. 875.

### **Objectives :-**

1. To identify a set of probable determinants of scholastic achievements of students of both rural and urban areas.
2. To investigate the nature of relationship of these determinants to scholastic achievement.
3. To assess the relative importance of these determinants.

### **Methodology :-**

**Sample** – Students of the secondary schools in the district of Birbhum, West Bengal. Using stratified random sampling method – on the basis of their results in Madhyamik Examination for 3 successive years – 6 high, 5 average and 6 low achieving schools were selected.

**Tools** – Achievement Tests; a test of selection of determinants, Socio-economic Status Scales (urban and rural), Interest Inventory, Rating Scales, Questionnaires, Opinionnaire, and Attitude Scale.

**Analysis** – Correlation coefficients and multiple regression.

### **Major Findings :-**

1. Parental care about child's education, emotional climate at home and socio-economic status of family had a positive correlation, and crowded living condition at home had a negative correlation with the scholastic achievement of students of both urban and rural areas.
  2. Library facilities, teachers' training, teachers' classroom behaviour and attitude towards teaching had a positive correlation and student-teacher ratio had a negative correlation with scholastic achievement of students.
  3. Peer influence had significant and positive influence, and the distance between home and school had significant negative correlations with achievement of students.
  4. Attentiveness to study, school attendance, health and interest in study had a positive correlation with students' achievement.
  5. Regression equations for predicting achievement scores from home-related, school-related, society-relation and student-related variables were constructed separately for urban and rural students.
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## *Annexure*



राष्ट्रीय शैक्षिक अनुसंधान  
और प्रशिक्षण परिषद



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No.F.23-169/96-Pub.(TCS)  
Publication Department  
(Technical Coordination Section)

12<sup>th</sup> May, 2006

Dr. Rabindranath De  
Director, SCERT (WB)  
Government of West Bengal  
25/3, Ballygunge Circular Road  
Kolkata 700 019

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**Department of Educational Research and Policy Perspectives**

F.No.4-117Misc/DERPP/2006/299

June 13, 2006

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26563980

**Dr. M. Sen Gupta**  
**Prof. & Head**

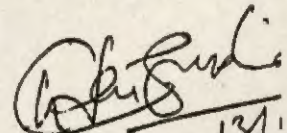
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With reference to your letter No.343/SCERT dated 29.3.06, addressed to Prof. Krishna Kumar, Director, NCERT, on the subject mentioned above, the Director, NCERT has very kindly agreed to permit the SCERT, West Bengal to use the abstracts of researches as identified from NCERT publications viz. 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Surveys of Research in Education (published by NCERT) in the nonpriced document titled "Twenty Five Years of Research in School Education: The Scenario in West Bengal" to be submitted to SPO, SSA, West Bengal. Kindly ensure that the NCERT and its contribution is prominently acknowledged in the said document. Also may I request you to forward a copy to us for reference.

With regards,

Yours faithfully,

  
(M. Sen Gupta)

Dr. Rathindranath De  
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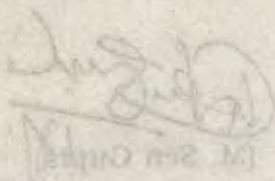


NCERT/DEPT/2006/299  
Date: 13/06/2006  
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### ERRATA

1. Foreword – 4<sup>th</sup> paragraph, 6<sup>th</sup> line, insert 'Unnayan' after 'Shiksha'
2. Pg. 9, 3<sup>rd</sup> paragraph, 2<sup>nd</sup> line, insert 'across' after 'came'
3. Pg. 16, delete first row (CE 01), repetition from pg. 15
4. Pg. 16, last row (CE 16), last column, read STs
5. Pg. 17, delete first row (CE 01), repetition from pg. 15
6. Pg. 19, delete first row (CAp 01), repetition from pg. 18
7. Pg. 21, last row (KE 15), last column, to be read as 'Language Education'
8. Pg. 22, delete first row (KE 08), repetition from pg. 21

Yours faithfully,

  
(M. Srinivasan)

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